THE
MEDICAL AND SURGICAL REPORTER

No. 1627. PHILADELPHIA, MAY 5, 1888. Vol. LVIII.—No. 18.

Clinical Lecture.

ON FRACTURE OF THE LOWER END OF THE HUMERUS.

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Gentlemen:—This boy is eight years of age. Two weeks ago he fell on his left elbow and broke the lower end of the humerus. His injured limb has been supported by a posterior splint, so that the forearm has been about midway between a right angle and complete extension. You may know that such a case is important, when I tell you that its diagnosis is uncertain, that it is difficult to treat, and that the results cannot always be known beforehand.

When such an injury occurs, and is presented for your examination and treatment, you have two standards for your guidance. First: In your general study of anatomy, you have formed and carry with you some ideal of the structure and uses of the elbow-joint. With this more or less correct ideal you compare the injured limb, and make a note of the signs. Second: You carefully examine all the land-marks of the other elbow. This is your best standard of comparison. Keep one hand on the normal elbow, and the other on the one that has been injured. At each and every point contrast and compare the injured with the normal structure. An analysis of your impressions will give you additional facts, which will aid you in your diagnosis. Then see how much the motions of the forearm on the injured side have deviated, and try to determine the causes that have impaired these motions. Is there a fracture of the bones at the elbow? Has the elbow-joint been sprained? And what is of the greatest importance, we should always ask if the injured part has suffered injury or disease at some previous time. We may not mistake the results of an old injury for the effects of one that is recent. An injury to a diseased joint brings two conditions to our attention: how much of the disorder was caused by the disease; how much of the damage was produced by the injury.

Let us begin our examination by noting the land-marks of the uninjured elbow. The head of the radius and the external condyle are formed to project equally on the outside; one is as prominent as the other. I have very rarely seen an exception to this rule of conformation. The ulna appears to be on a line with the humerus, just as if it were the prolongation of that bone. And the curve of the radius and the expansion of the radial base cause the forearm to meet the arm at an obtuse angle. The internal condyle is prominent, as well as the olecranon process of the ulna. Mark the groove between these two processes, and keep in mind the distance of one from the other. See the way in which the olecranon moves to and fro during extension and flexion of the forearm. Remember that at the age of our patient the lateral motion of the forearm, so common in early life, has mostly disappeared. In our patient this evanescent function is absent. In fine, the motions of flexion, extension and rotation of the forearm of the uninjured limb are practically normal.

I have already told you that this boy had broken the lower end of his left humerus: I expect to prove this conclusion beyond the possibility of a doubt. But in the mean time let me say to you, that the changes taking place in the lower end of the humerus, as it develops, have important bearings on the causation, nature, treatment, and the results of fractures, such as we have illus-

trated by the case of our patient. I allude to the epiphysis and the cartilage between it and the diaphysis. In our patient ossification is going on in the end of the humerus adjacent to the radius, the external part of the ulna, and the internal condyle. And it seems to me that this change from cartilage to bone, which occurs in the ends of long bones, is sometimes a reason why a fracture happens so often in this location. In making this statement I do not underestimate the influence of other causes. But I am inclined to the opinion that this ossifying cartilage, though the change goes on very slowly, resembles provisional callus; for both are apt to yield and even break under the impact of external violence. The bearing of this ossifying structure on the nature, treatment and results of such fractures will receive our attention, when we have made our diagnosis.

Let us inspect this injured limb and see what we can find. The condyloid end of the left is greater in width than the corresponding end of the right humerus. Measurements by the calipers show that the lower end of the right humerus is about an inch and three-fourths in width, and that the lower end of the left humerus is about two inches in width, demonstrating the fact that the injured elbow, from some cause, has been made wider than the other. The forearm of the injured limb bends and falls to the inner side. The external angle usually made by the forearm and the arm at the elbow-joint is obliterated, and an internal angle is formed. The entire forearm is displaced inward nearly one-fourth of an inch. Observe this somewhat sharp prominence just above the place where we ought to find the head of the radius. You can see that the head of the radius is displaced inward, and part of the radial head of the humerus has gone along with it, leaving a rough end of broken bone under the skin and fascia. This rough end can be seen, and can be distinctly felt. How can the upper end of the radius move inward and not take the upper end of the ulna along? And we find that the ulna has moved inward about one-fourth of an inch. But, as you see, the internal condyle has also moved inward. And if we measure, we shall find that the internal condyle and the upper end of the ulna have nearly the same relations on the injured as they have on the normal side; the apex of the internal condyle is about as far from the olecranon on one side as on the other. And we discover a deeper curve on the inner aspect of the left arm just above the elbow than in the same location on the right arm. It seems as if the more internal parts of the left humerus, near the internal condyle, had been bent inward, without giving way entirely, producing a form of incomplete fracture. The age of our patient would be in favor of such a conclusion.

Now we may consider the displacements of the fragments, for we may assume that the lower end of the humerus has been broken. The head of the radius and the radial head of the humerus are, as you can see, displaced backward somewhat further than the upper end of the ulna, the trochlea and the internal condyle. The lower articular end of the humerus is displaced inward about one-fourth of an inch. This lateral displacement is as great as the shortening of the injured humerus. It seems that the lower end of the upper fragment is displaced outward and somewhat forward about one-fourth of an inch.

The motions of the elbow-joint are impaired. The forearm can be moved to a point about twenty degrees from complete extension, and from thence nearly to a right angle with the arm. It has lost more than one-half of the function of flexion and extension. The left forearm has about thirty degrees less rotation than the right. Its lateral motion has been somewhat augmented. These motions are passive. They are made by the surgeon. The voluntary motions of this elbow-joint are very much impaired, not only on account of the mechanical obstructions, but also on account of the pain and the tenderness. In fact, the motions are not all confined to the joint. There is mobility in the continuity of the lower end of the humerus. The radial head of the humerus is broken off obliquely inward and upward, and there is a line of separation between it and the trochlea, so that the motion of the fragment is added to the motion of the elbow-joint. The simple fact is that the head of the radius has left its normal relation with the external condyle. The fracture extends obliquely upward and inward from the fragment just described, displacing inward the internal condyle, which is not completely detached from the shaft of the humerus, and yet the separation is sufficient to add some mobility to the elbow-joint.

In this place let me call your attention to the nature of some fractures that occur in the condyloid end of the humerus, and to the position of the forearm in the case of this patient. I have seen a number of cases of incomplete fracture in the ossifying cartilage of the condyloid end of the humerus. These cases have occurred in boys from six to fifteen years of age. In the case of this

boy the fracture is mostly complete. The lower end of the diaphysis of the humerus is split upward and inward, and the fibres of the bone on the internal aspect above the internal condyle are partly broken and partly bent. It seems as if the olecranon had acted as a wedge to penetrate to some extent the intercondyloid tissue, and aid in no small degree the displacing effects of the external violence that was applied at the time of the fall. I think that there can be no doubt of the existence of a fracture of the lower end of the humerus in this case. It is complete on the outside, and it is incomplete on the inside of the humerus.

Let me say to you that from time to time I have seen incomplete fractures, that have occurred in the ossifying cartilage of the lower end of the humerus. These fractures traverse the tissue vertically, obliquely and transversely. They are most apt to occur in boys, between the ages of six and fourteen years. The structure seems to split for a certain distance, and form a wedge-shaped opening, which is usually filled up by the material of repair. The displaced fragments, are, for the most part, irreducible. Had we the time at our disposal, I could give you the clinical history of a number of these cases coming under my observation and treatment.

Let me give you a few words in regard to the position of the forearm in the case before us. Since the ulna is attached to the inner fragment, and since that fragment is bent inward, and since the radius is attached to the outer fragment, and since that fragment is displaced backward, it follows that the entire forearm is rotated outward to some extent. This is one of the displacements of the forearm, which has followed the lower fragment of the humerus in its internal angular displacement. Let me call your attention to some points of scientific and practical importance in regard to the attitude of the forearm. The space between the ulna and radius is greatest when the forearm is in a position of mid-rotation, and the radius approaches the ulna from this position to complete pronation, as well as to complete supination. And when the forearm is flexed to a right angle with the arm, carried across the chest, and kept vertical, so that the radius is directly over the ulna, the bones of the forearm will be in the same plane, and will be at their greatest distance from each other. This plane of the forearm, as you see, meets the long axis of the arm at an acute angle that differs as to size in different patients. Now I have often given you reasons why the orearm as a rule ought to be put in this position during the treatment of fractures in the vicinity of the elbow-joint. This position tends not only to equalize the antagonism of the muscles that span the elbow-joint, but it also conduces to the reduction of the displaced fragments of bone. And if we construct a splint on the mechanical principles suggested by the conformation, the structure and the muscular apparatus of the elbow and its relations, it will accomplish two important indications: we can make a more complete reduction of the displaced fragments, and the patient will have the greatest relief from pain. I have proved these two propositions in a practical way on many occasions. More than once I have been surprised at the completeness of the reductions of the bony fragments, as well as their retention in position during the process of repair. Often patients have expressed relief from pain, when this form of splint has been applied.

This apparatus would appear to be an unnecessary refinement—and so I have been told. In reply to this, let me say, that the surgeon is morally bound to give his patient as much freedom from pain as he can. He is bound by the same kind of obligation to apply his best skill in the treatment of the case. He must reduce the fragments in so far as it can be done safely. He must put in practice those principles which will, according to his best judgment, restore and conserve the functions of the damaged structure to an extent which will be consistent with ordinary skill; and he may go as far beyond that as he can. The ambition of the surgeon ought to lead him in the direction of the highest success. Now in my hands this splint, having two angles as above described, has accomplished good results. In fact it has answered a better purpose than any other that I have employed; and so I recommend it.

You will see that the motions of this elbow-joint are very much impaired. And then you ask—what is the cause? Let me explain: The joint surfaces which fitted and moved in opposition before the injury, have been deformed, so that the parts have lost their adjustment, and so that the projecting points of bone on both sides of the joint meet and obstruct each other. And since the fragments have been only imperfectly reduced, the obstructions to the motions of the joint must continue to operate. But the case does not remain in this condition. The process of repair has furnished new material between and around the fragments, so that the obstructions to motion have been augmented. In fact, the process of repair works in the

direction of making the fragments grow together, and does not seem to have any special purpose in restoring the motions of the joint. In addition to this, bands of adhesion, as they are called, attach one part to another so as to further impede the motions which have been impaired.

And then there is another point connected with this injury: I mean that there has been some damage done to the neuro-muscular apparatus. In a healthy joint which has not been injured there is a coordinate relation between the nerves and muscles concerned in the motions of that joint; and the bony levers are involved in this relation. That is, we have a triple relation of bones, muscles and nerves. Damage to either factor will derange the entire coordinate relation so as to interfere with the performance of function. The bony supports, as points of resistence and surfaces of motion, have been seriously damaged in this case. The nerves have been injured and irritated. The nerves send messages to the muscles, not to make them keep quiet, but to cause them to contract, and they do so without discretion. The fulcrum of the bones of the forearm is in pieces and can not normally sustain the force of the contracting muscles that span the elbow-joint. Now the muscles not only displace the fragments by traction on the bones, but they will also in time become shortened; they will become *contractured*. And then, as you now see, we have another reason why such an injury, as the one before us, impairs the functions of the part in which this triple relation of bone, nerve and muscle has been deranged.

Let me tell you another thing which sometimes leads to a difference of opinion among surgeons, and is apt to be a cause of controversy. I mean this: That these cases of injury to the elbow-joint, accompanied by fracture of the condyles of the humerus, eventuate in very different results in different cases. It is the old story, which we are all so slow to learn, which begins in the constitutional condition of our patients who are not all put together with the same physical consistency. One patient will have a trivial injury to the elbow, and be left with the functions of the parts greatly impaired. Another will have a severe injury, even involving a compound fracture of the condyles of the humerus, and have a recovery that is almost perfect. Both of these cases may be treated on the same plan and with the same degree of skill; even the one that has resulted with the greatest disability may have been treated with greater care and skill than the other. The difficulty does not exist in the treatment, but comes out of the physical condition of the patient. Hence it has occurred that one surgeon has had a series of cases of fractures of the condyles of the humerus, in which good results have supervened, and then he extols the plan of treatment that he has pursued; and perhaps he may come to the conclusion that he can always prevent disability in cases of fracture of the elbow. I need not emphasize the fact that this surgeon is mistaken. On the other hand, another surgeon may have had a series of these cases of fracture, and may have had them all in the main result in more or less disability. Let him not be discouraged for he may have treated his cases with more than ordinary skill. The results may have been due to the intrinsic difficulties of the cases, which no one can overcome. Let surgeons reason together; let no one be discouraged; let no one be unduly exalted. It is easier to criticize work than it is to perform it; and the apparent results are not always the index and the measure of the skill that has brought them about.

There is one point connected with fractures in the vicinity of joints in regard to which you may be in some doubt. This point relates to passive motion. On passive motion there are many different opinions among surgeons. One says, begin passive motion soon after a fracture occurs; another says, institute passive motion at the end of three or four weeks; and still another says, make passive motion when six or eight days have elapsed. Again, one surgeon says, make passive motion every other day; a second says, make passive motion every third or fourth day; and a third says, make passive motion about once a week. Each one of these precepts has given good as well as bad results; and this means that the methods are not so much at fault as the condition of the patient and the circumstances of the case. Your difficulty, when there is so much uncertainty, will be to know what to do in a case of fracture of the elbow, for instance.

In the light of experience, let us analyze this subject of passive motion. What is the object of passive motion? Practically, it is to prevent, as far as possible, the impairment of voluntary motion. When the fragments have grown together, it is desirable not to have a disabled joint in the vicinity of the fracture. What events are apt to occur in the vicinity of the elbow-joint, when there is a fracture of the condyles of the humerus? The inflammation, incident to the process of repair, may implicate the

tendons and their sheaths, as they span the joint, and leave adhesions that may interfere with voluntary motion. Also the inflammation may agglutinate the various forms of connective tissue about the joint, so as to aid in the production of disability. The new material that is formed for the repair of the broken bone, as we have indicated, will be a potential cause of anchylosis. Now what will be the effect of passive motion on the formation of adhesions between the layers of connective tissue as well as between the tendons and their sheaths? Passive motion of proper kind and degree, in the great majority of cases, will be instrumental in preventing, or limiting the formation of such adhesions. Sound theory, as well as abundant experience, has corroborated this conclusion. Severe injury and excessive inflammation might interfere for a time with our attempts to make passive motion. In the next place, would passive motion interfere with the formation of callus? and would it cause the displacement of the fragments? In a case of incomplete fracture, or when the fragments could not be reduced, passive motion would not cause displacements. In any other case, except when there is great swelling of the soft parts, it is possible, as a rule, for the surgeon to hold the fragments in place as he makes careful passive motion. I have often verified this practice. In regard to the new material that is going to be transformed into bone: in general, the pressure produced by the passive motion will make the new ossifying material yield and cause it to be absorbed, so that the bones of the forearm can be flexed and extended more and more, thus conducing to a better result.

Now, what kind of passive motion shall we make in these cases? Let it be gentle, so as to prevent adhesions between the tendons and their sheaths, and so as to keep the new ossifying material from obstructing too greatly the motions of the joint. As a rule, let passive motion begin from three to five days after the fracture has occurred, and let it be repeated every three or four days from that time till treatment is no longer required. There is no fixed time for treatment to continue; one case may need passive motion only a few weeks, and another may need it as many months. Let me illustrate: One boy, about nine years of age, broke the condyles of his left humerus, and in six or seven weeks had good union, with nearly perfect restoration of the motions of the forearm. This case was treated on the plan above described. Another boy, about fourteen years of age, broke the condyles of his right humerus, and, after ten months of the most persistent and careful treatment, had firm union of the fragments, but could flex and extend the forearm only about one-half the normal distance. The constant tendency in this case was to anchylosis. On several occasions I administered ether and broke up the adhesions, causing some absorption of the new bone, so as to augment the extent of the motion.

One of the possible sequences of passive motion must be mentioned. There may be fibrous union between the fragments of bone, leaving a new point of motion, with the joint more or less impaired. This condition may not augment the deformity to any great extent, and it will not very greatly diminish the strength of the joint, while it may increase the motions of the forearm. Now, it might be that motion of the forearm would be more desirable than resistance of the elbow-joint, so that fibrous union of the bony fragments might be more useful than anchylosis. And let me add that I have seen fibrous union take place when the case has been treated without passive motion. Also, I have seen the condyloid fragments mostly absorbed, so that the motions of the forearm have been very much greater than normal. Furthermore, I have seen two sets of cases: one in which the forearm could not be flexed above a right angle, not only on account of the projection of the lower end of the upper fragment, but also on account of the formation of new substance in front of the elbow-joint, but the extension of the forearm has not been greatly limited in such a case. The other set of cases has exhibited a persistent tendency to flexion of the forearm even above a right angle, and has presented such obstruction to extension as has been very difficult to overcome. The difficulty in such a case appears to depend on resistance to the olecranon by new substances formed in the olecranon fossa, as well as on contracture of the flexors that span the elbow-joint.

—Dr. Cullimore asserts (*British Medical Journal*) that 10 drops of a fluid extract of phytolacca decandra, repeated a few times, aborts inflammation in mastitis. The drug acts as a general narcotic, but only in a favorable way. In larger doses it excites vomiting and diarrhœa, which may be followed by coma and death. It may also be used externally directly to the breast, or in the form of compresses. Dr. Cullimore thinks it is likewise active in orchitis and epididymitis.

COMMUNICATIONS.

QUININE—ITS USE AND ABUSE.

BY HIRAM CORSON, M.D.,

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Many persons write of quinine and its value in various diseases: to reduce the frequency of the heart's action; to abate the temperature; as an antipyretic in pneumonia; as a promoter of sleep in nervous affections; for the relief of pain in neuralgia; as a tonic in all weak conditions of body; as a remedy for those every-day "bad feelings" which beset many of us; and, above all, as an antiperiodic in all diseases which can be traced to the influence of malaria, and in all others not readily diagnosticated. I need not have spoken of so many diseases, for now we have almost none but malaria and those caused by germs. Even malaria is likely to be displaced as a cause of disease, for all bad-airs are now looked upon as germs which are seeking whom they may devour. We are apt to carry the use of even a good medicine too far; to use it when not needed, oft-times, too, to the injury of the patient; and, even when needed, in extravagant, if not harmful doses. During the last twenty or thirty years such has been the case in relation to the use of quinine. Just before Dr. Brinton ceased to edit the MEDICAL AND SURGICAL REPORTER he published an article from a correspondent on the use of quinine, in which the doses used were small, compared with those now in common use; so small that the editor felt that it was needful to call attention to it, by a note appended, in which he stated that *small doses given so far from the expected paroxysm are utterly useless to arrest an intermittent disease.* I do not quote his words. This attracted my attention, and I have since observed that this opinion is in accord with the opinions of those who are in the habit of freely using quinine, and who see a malarious origin in nearly every disease, not due to germs. Large doses given near to the time of the expected paroxysm in intermittent fever—twenty, forty, seventy grains a day; yea, as much at a single dose is vauntingly, triumphantly spoken of as an improvement on old time practice. In view of the opinions and practice of the present time, it has occurred to me that it may be useful to speak of this medicine and its value as a remedy in the diseases in which I have used it for more than sixty years.

Our necessities sometimes teach us valuable lessons. When, in 1826, I began the study of medicine at New Hope, Pa., intermittent fever prevailed extensively along the Delaware river from Bristol to Easton. We hear much now about "malaria." It is spoken of as a *disease*, not as a *cause* of disease. The one disease which every physician in our country acknowledges as the one undoubted malarious affection, is intermittent fever. It was this disease which in the fall of 1826 I had daily opportunities to see in its varied forms, from the simple ague, with its daily shakes, to the tertian with its every other day, and the quartan with its third day paroxysms.

At that time my preceptor told me that he was paying $16 per ounce for sulphate of quinine, and that a few years before that time the cost was $26 per ounce. This price will seem almost incredible to physicians of the present day. Fearing that this statement might be doubted, or attributed to the forgetfulness of old age, I wrote to Powers & Weightman, successors to "Farr and Kirnzic," at that time the manufacturers of the article—and have received the following answer: "In regard to the price in 1826 being about $16, and some time previously $26, we think you are substantially correct." * * * * "We have a friend in Cleveland, Ohio, who said some time ago, that he remembered buying from Farr & Kirnzic, about 1825, at $24 per ounce, and we think he is correct." At twenty-four dollars per ounce, the cost per grain would be five cents. It is easy to believe that a physician who furnished the medicine to his patients had need to be economical in the use of an article so expensive, and would try to discover the least amount on which he could rely to cure an intermittent fever, the principal disease then occupying his attention. Grand opportunities physicians had too, for observing its effects and the amount needed to insure an arrest of the disease. There were hundreds of cases. Every day, or every other, or every third day a chill, of perhaps a whole hour, followed by pain in the head, high fever, sometimes delirium for several hours, succeeded by profuse perspiration, subsidence of the former symptoms, and then for a few hours comparative comfort until the return of the paroxysm and its attendant ills. While some of them would be seriously ill confined to the bed, some others in the same family, would be up during the interval.

As we passed into the fall of 1826 I saw with my preceptor many patients suffering with the various forms of intermittent fever,

which prevailed to a distressing degree on both sides of the river. His inability to attend to all the cases caused him to assign a certain district to the care of another student and myself. This strip of three miles in extent, from "Ingham's Spring" to the river Delaware, was studded with mills and factories, at each of which were a large dam and a long race filled to the brim at night, but drawn down somewhat during the day. Here with these sick men and women, boys and girls, all suffering from some form of fever—which would now be called malaria—we exercised the little skill we had for their relief. My fellow-student had been doing "some practice" for several months before I entered the office, and he, therefore, did the prescribing. Day after day we made our trips up the "race" attending to the sick, and oh! how sick some of them were. There were all the common forms of intermittent and we could generally cure them without difficulty or delay. But there were also some cases which did not get well so readily—were not decided intermittents; these were called remittents, or bilious fevers, and though quinine was used in the treatment occasionally, the great disorder of the stomach, high fever, occasional delirium, pain in the head and almost jaundiced condition of the skin, indicated as we then believed the use of calomel and febrifuges.

In the pure intermittents our usual treatment was ten grains of sulphate of quinine in one or two grain doses every hour, or two hours, dependent on the length of time of the interval between the appearance of perspiration and the time of the expected chill. We deemed it quite important to exhibit the medicine as soon as possible after the abatement of the hot stage and appearance of perspiration; in other words, *as far from the time of the expected chill as possible.* Our practice as you see, was the very reverse of that spoken of and advocated by Dr. Brinton, yet, I do not speak of it as being the proper one, but merely state the fact. If in the interval we could give ten grains every hour, in the fore part of the intermission, we felt almost certain it would prevent another attack the following day, or at farthest, the next day, if the case were a quotidian. Scores and scores of cases were thus arrested, though the patients had such poor doctors. During the sixty years, which have since passed, hundreds and hundreds—may I not say thousands—of cases have I arrested with this small amount of this valuable medicine. After I graduated in 1828, the disease prevailed along the Schuylkill river and throughout my whole region, and my practice was the same as while at New Hope. Called to a patient, I would generally be able from the history given to me, to ascertain whether it was a quotidian, tertian, or quartan. If the first, I gave ten grains as already stated; if a tertian, the ten grains were used in the same way and infusion of gentian ordered for the next day; if a quartan, the same practice was followed, but sometimes ten grains were given twice in the interval. When at New Hope it prevailed so greatly, there were also cases of pernicious intermittent fever, which, if not arrested, generally proved fatal during the third chill, reaction failing to appear. In these cases, as there was a possibility of failure in the ten grain dose, and as the peril was extreme, thirty grains were given to the patient during the interval, by giving three or four grains every hour. In no case which I saw with my preceptor there, did thirty grains fail to save the patient. At the time at which I speak, there came to the place a young graduate of the University of Pennsylvania, born and educated in Philadelphia, where intermittent fever did not prevail. He had probably never seen a case of the pernicious kind, and had had no opportunity to become acquainted with it. He had very influential relatives there and soon had patients. He encountered some cases of pernicious intermittent fever which carried off three prominent men, doubtless from the fact that he treated them as he did his ordinary cases. In 1835 I was called to an apprentice of a joiner, 19 years old, who had had his second chill. I saw him at 2 P.M., three hours after the chill began. He was as prostrate as a man in typhus fever; his parents had been sent for, as he was thought to be "sinking." It was apparent to me that this was a regular quotidian, but a most pernicious one; but, as he had lived through the chill, I felt confident that if I could prevent another he would be saved. The thirty grains were given before day-light next morning. He escaped the chill that day, and the next day he sat in the carriage and rode to his home two miles away, apparently and really well.

I am not now advocating the propriety of giving only ten grains to arrest an intermittent fever, or the safety of trusting a pernicious one to thirty grains, but merely stating facts, and showing the control which these comparatively small doses had over that active malarial disease. The pernicious fever was recognized and noticed by medical writers as early as 1822—possibly earlier. From 1822 till 1832 intermittent and remit-

tent fevers prevailed distressingly in what were then called ague districts; but after the advent of the cholera in 1832, they were greatly diminished in numbers, until 1842, when few cases, comparatively, presented themselves. So numerous were these fevers during the first four years of my practice, that if I were to name the numbers occurring in a single season the statement would scarcely be credited. Many times I have seen a majority of the family suffering from intermittents and remittents at the same time, and in some instances have seen every member of the family ill at the same time, one not being able to help another. And how various were the symptoms of this disease! Sometimes only a violent pain over one eye; in one case severe pain in the "head" of the penis, recurring every day at the same hour. In two cases, uticaria over the whole body, disappearing with the perspiration, to recur again at the usual hour, and all relieved by the quinine, as in an ordinary ague. Wherever the periodicity was well marked quinine in the doses named was an efficient remedy.

In a paper published in the MEDICAL AND SURGICAL REPORTER, July 2, 1887, by Dr. Mary Putnam Jacobi, on "Quinine in Pneumonia," she says: "I do not understand Dr. Corson's general denunciation of quinine as a dangerous agent." It will be seen by this paper that I do not regard it as a dangerous agent, and that in my reference to the proofs, given by herself and six other New York physicians, of the utter uselessness of it in pneumonia in their cases, I (in my review of their experiments) objected to its use because its exhibition was useless, sometimes fatal, by taking up precious time to the exclusion of better means of cure. Now let me kindly say, in her own words: "I do not understand how Dr. Jacobi dare recommend its use in pneumonia after proving its worthlessness in that disease." I regard quinine as next in value to opium, but I am disgusted with the disposition to regard malaria as the cause of every disease (not already assigned to germs), and quinine in large, injurious doses as the remedy. There are very few cases of malarial disease now—not more than one in fifty, so-called. It is so handy, when we can't diagnose a disease, to say it is malaria, that we hear it on all occasions, if not as the disease, at least as that which gives character to and aggravates the real disease, and that the treatment must be of a kind adapted to the entire removal of the malaria from the system. Should a new doctor be called to a case which convalesces slowly, he often finds that "the other doctor has not gotten all the malaria out of your system; no wonder that you could not get well."

About forty years ago "spinal disease" was as prevalent as "malaria" is now; thousands of backs were covered with pustules from the nape of the neck to the sacrum; now it is almost unknown.

In a most valuable paper by Dr. James W. Price, in the MEDICAL AND SURGICAL REPORTER of March 10, 1888, I find the following: "Peacock and Niemeyer have both given up the use of large doses of quinine. Quinine in large doses is unnecessary, useless, and often dangerous." That is strong language, but not too strong; and from the same paper, this: "Dr. Edeson says: 'For some years physicians have been quinine *mad*, affected with what may be termed *cinchoniphobia*. The practice seems to have been, when in doubt give quinine; give quinine any way.' How true this is! But we must not forget that this refers to the abuse of it. That it is a valuable medicine in some other than malarial cases, no one can doubt, even if we had no other proof than that given us by that most observant and experienced practitioner, Dr. T. Curtis Smith, in the MEDICAL AND SURGICAL REPORTER of September 16, 1882. Many of the people who write about malaria and quinine have had almost no experience with either of them. They jump to conclusions from the most trifling causes—fancy they have arrived at a knowledge known to no one else. Let me illustrate. An eminent physician, justly holding high rank as a careful observer and truthful reporter, was called to a young girl, and for two days thought she had worms, and treated her accordingly; but as she did not improve, he questioned her closely and discovered that, prior to her illness, she had been in Maryland. Then he concluded it was malaria, and he gave her 20 grains of quinine, and the next day chloral. She recovered at once. Then he published the case, with this heading: "Chloral as a remedy in Intermittent Fever." He had used before the chloral twice as much quinine as was sufficient to arrest an intermittent fever, but he disregarded that and credited the cure to a medicine which doubtless was entirely useless. This was read by thousands of physicians, and hosts of persons were, no doubt, dosed with chloral as a remedy for intermittent fever, or supposed malarial disease.

The abuse of quinine is beyond credence. A man has rheumatism, it is malaria; tooth-

ache, headache, indigestion, pains in the body, sleeplessness, irritative fever of any kind, carbuncle, catarrh, "kidney trouble," everything but pregnancy (and even every discomfort of that), is malaria. Recently I was told by an invalid, who did not look like one, that "his doctor said he was suffering from malaria which he had contracted three years before; that the doctor who attended him had not gotten it all out of him." I find it is a very prevalent belief with the masses that it is a difficult matter to rid the system of it. In that belief there is this comfort to physicians, namely, that if they be slow in giving relief the patients excuse them, because "we know it is difficult to get the malaria out of the system."

Within a month a friend of mine was in consultation with a physician who was dosing a young man with large doses of quinine, persistently day after day, despite fearful pain in the head, probably brought on by it, under the impression that he had malaria; when it was apparent to the consultant that it was typhoid fever, which copious hemorrhages from the bowels proved it to be.

In the *Medical Standard* of April, 1888, p. 113, is an article by I. R. Spooner, of Dakota, who says, speaking of "Pneumonia in Children," that after some preparatory treatment, "fifteen to twenty grains (quinine) should be given for one or two doses, then three to five grains, every three or four hours thereafter until temperature be reduced, when three or four medium doses should be given during twenty-four hours." He should have added if the child be still alive. All this, months after Dr. Ripley, the Drs. Jacobi, and four others had declared that their trials of it as an antipyretic had proven its utter uselessness in pneumonia. Just such treatment as is recommended by Dr. Spooner has been fashionable with many others, they believing that in large doses it would reduce the heat of the body, an opinion proven to be false by the observations and experience of Dr. Ripley and the five others who discussed the subject in New York and published their opinions in a medical journal.

It is fearful to subject a child to the dangers incident to these large doses of a medicine a few grains of which will make the head of an adult ring, and sometimes produce temporary if not permanent deafness.

—The *Boston Med. and Surg. Jaurnal* states that the Massachusetts General Hosptal has recently been given $50,000 by Miss Helen C. Bradlee, of Boston, as a memorial of her brother, the late L. Putnam Bradlee.

A NEW AND RELIABLE REMEDY FOR COCCYGODYNIA AND PRURITUS ANI.

BY R. STANSBURY SUTTON, M. D.,
PITTSBURGH, PA.

I have, for reasons I do not now care to speak of, regarded this disease as purely neurotic. I have treated it with the Faradic current. One treatment produces immediate relief; a few treatments cure it. Three cells are sufficient; time, five minutes; the frequency of application depends upon the return of pain. The anode is placed over the sacrum and the cathode in the vagina or rectum, or over the sphincter ani muscle. This treatment, so far as I know, is original with myself.

Much has been written of late concerning the treatment of pruritus ani. I desire to add my own suggestion. The best remedy I have ever found is the galvanic current; the quantity required need not exceed five milliampères; the time of application five minutes. The relief is immediate, and the application once or twice daily is quickly curative. The anode is placed over the perineum or base of the scrotum and the cathode against the sphincter ani, or, if required, within its grasp, bringing all the pruritic surfaces between the poles. I claim to be the first, so far as I know, to suggest this remedy for the treatment of this disease. I will ere long have more to say of it.

April 14, 1888.

FUNCTIONS OF THE MUCOUS MEMBRANE OF THE NOSE, THROAT AND EARS.

BY THOMAS F. RUMBOLD, M.D.,
ST. LOUIS, MO.

The mucous membrane is one of the important organs of the body. Upon it devolves functions that are so necessary to some of the phenomena of life, that without it life itself could not be maintained.

This organ is composed of an epithelial layer, a mucous membrane proper and a connective areolar tissue under it. In the epithelial layer are found compound or racemose glands, simple follicles and villi containing groups of blood-vessels in single loops and in net-work. Mucous membrane proper contains blood-vessels—the coats of which are encircled by sympathetic nerves, sensory nerves, muscular fibres and rounded enclosed follicles. The functions of the compound

and simple follicles are to maintain the surface of the mucous membrane in a moistened condition. The epithelial cells that compose the upper surface of the mucous membrane, contribute the same secretion, as also does each epithelial cell that composes the entire layer, as each cell acts as an independent secreting gland. It is seen, therefore, that the moistened condition of the mucous membrane is its normal condition. Please bear in mind that I said the *moistened* condition; I did not say a wet condition, that is, a condition in which the secretions are so profuse as to flow from one portion of the surface to another.

If the quantity of the secretion in the membrane is sufficient to form even a very slight stream, then we would have a flow, or by using another word which means the same thing, we would have a catarrh. It follows, therefore, that every mucous surface from which the secretions flow, even in the least quantity, has a catarrh of its surface. On the other hand, it is only when the mucous membrane is in a moistened state, and not in either a flowing or dry condition, that it is possible for it to perform, completely, the functions that are essential to health.

Some of the functions of the mucous membrane vary according to the location of the organ covered by it. In the nasal and pharyngo-nasal passages, the functions are to warm and moisten the air that passes through them into the lungs. As long as these peculiar functions are not interfered with, pathological changes of a very marked character may occur and the patient be unconscious of them. Even the special sense of smell may be so completely obtunded by inflammatory action, as to cause the patient to be unable to name even the week or month in which he lost the ability to recognize odors of more or less pungency.

In the pharynx the mucous membrane secretes a sufficient amount of mucus, to lubricate the bolus of food as it passes on its way to the œsophagus. If this function is not interfered with, the patient will be unconscious of the presence of a prolifierative pharyngitis, the favorite target of almost every throat specialist, and many general practitioners who take trouble to look at the throat.

In the larynx, trachea and bronchial tubes, the mucous membrane has little other function to perform than to maintain the surface of each organ in a moistened condition, but whenever there is a flow of mucus from either of these passages then they are in a catarrhal condition. In the air vesicles of the lungs, in addition to the maintenance of the surface in a moistened condition, its additonal function is to allow the entrance of oxygen into the blood, and the exit of carbonic acid gas from that fluid. When inflammatory action exists in this locality a flow of an excessive quantity of muco-purulent secretion is observed, the quantity being so great as to soon exhaust the patient.

In the Eustachian tube the ciliated columnar epithelia allow the gradual entrance of air into the middle ear, and thus maintain the normal rarefaction that is essential to normal hearing. In the middle ears and mastoid cells, its function is to absorb the air that enters these cavities through the Eustachian tubes, as without this air absorption we could not have perfect hearing.

In mentioning the uses of the Eustachian canal, all physiologists maintain that it is also a drainage-tube to conduct away the secretion of the cavity of the middle ear. This is an assertion that no one can prove. Most of these authors have forgotten that they had already stated in the first part of their works, that healthy mucous membrane secretes only that amount of mucus that is sufficient to keep the surface in a moistened condition. Besides this, the opening of the middle ear into the Eustachian tube is situated some distance above the floor of the tympanic cavity. In this respect, the opening between the middle ear and the Eustachian tube is similar to the opening of every mucous cavity of the head, such as the antrum of Highmore, the ethmoidal and sphenoidal cavities, the mastoid cells, and the frontal sinuses, in each of which the opening is as far away from the floor of its cavity as it is possible for it to be; and at the same time to be open from the side. If the opening into the left antrum of Highmore was made for the purpose of allowing mucus secretion to enter the nose, then each one of us would have to hold the head so far to the right side that the axis of the left auditory canal would be in a vertical line. To empty the right antrum an opposite position would have to be assumed. To enable one to allow secretion to flow from the sphenoidal sinuses, would require the head to be placed so far forward and downward that the forehead would be on a horizontal line. Even in this position these sinuses would not be entirely emptied. The same can be said of the ethmoidal cavities, and mastoid cells and frontal sinuses. The position which would be required to empty the left antrum of Highmore would not empty any other cavity of the head; while the position that would allow most of the fluid in the ethmoidal sinuses to

escape into the nasal cavities would be such as to retain all of the secretions in most of the other sinuses.

From this it is seen that in not one of these cavities is there a provision for the exit of mucus. Nature never intended that this secretion should be thrown off in the fluid form. It is all to either be evaporated or absorbed.

I think the reason why authors make the Eustachian tube an outlet for the middle ear, is because they find that this function is not inconsistent with the accepted theory of air entrance and exit. As long as they continue to hold to Toynbee's theory, which conceives it to be a canal through which air can pass either way, so long will they continue to consider it a drainage-tube also.

In treating all these passages and cavities, we must constantly keep in mind these varied functions and not interfere with them in the least if we expect to benefit the patient. In fact, it would be as much a fault on the part of the physician to treat one of these cavities without bearing in mind the functions of the membrane lining it, as for the surgeon to treat a fracture of the elbow without bearing in mind the function of this joint. If, in our applications we do anything to hinder this membrane from performing its functions, we shall aggravate instead of ameliorating the patient's complaint. This is the reason I do not use astringents or other irritants, as their effects on the mucous membrane are imcompatable with the performance of its functions.

We have in the inflamed mucous membrane an organ that has lost its functions, or rather is unable to perform these in a proper manner. Our duty is to restore the functions as soon as possible, and every application that will not assist in its restoration will certainly end in increasing the trouble.

We have inflammations of long standing, resulting in great changes in some portions of the membrane, as in the pharynx, which still are the cause of no inconvenience or disability to the patient. But if this same kind of inflammatory process takes place in some other organ, it may occasion a disability or the entire obliteration of some function. For instance, if the proliferation which we have seen in the throat occurs in the nasal passages that are normally small in calibre, it would compel the patient to open his mouth to allow respiration, thus helping to induce the follicular pharyngitis spoken of. If it occurs in the Eustachian tubes it would prevent the entrance of air into the middle ear; and, as this inflammatory process is slow, would be the occasion of that slow loss of hearing which we see in very many ear patients. If it occurs in the middle ear it prevents the ossicula auditûs from responding to the vibrations of the membrana tympani, leaving the patient more or less deaf. From this it is seen that a chronic inflammation may or may not be the cause of inconvenience or disability, and whether it is or is not will depend entirely upon the organ in which it is located.

SPASMODIC STRICTURE OF THE URETHRA FOLLOWING LABOR.

BY LLEWELLYN ELIOT, M. D.,

WASHINGTON, D. C.

The following is the history of a case which I attended recently, and is the first one of its kind with which I have met in fifteen years.

N. P., aged 23 years, born in Kentucky, of nervous temperament, but otherwise healthy, was delivered naturally of a male child, weighing nine pounds, at 12.30 on the morning of December 30. Her pregnancy had been marked by excessive gastritis in the earlier months, and by intercostal neuralgia in the latter, otherwise her health was good. On January 5, at 3 o'clock in the morning, she passed her water, but afterwards failed to do so. Hot applications were made over the region of the bladder, but with no relief; the pain and nervous excitement becoming very great, at seven o'clock in the evening I was called. With much difficulty a catheter was passed into the bladder, and a large amount of strongly smelling urine was drawn. On January 6, at 11 o'clock in the morning, the catheter was again introduced, but with pain and difficulty; at 11.30 at night a cocaine cone was allowed to dissolve in the vagina, the end resting on the meatus urinarius; the catheter was introduced and the urine drawn off; the pain was very severe and the stricture very tight; a soft rubber catheter was substituted for the silver one. On January 7, at 10 A. M., a cocaine solution, then a cocaine cone was applied, a soft rubber catheter introduced, and the urine drawn; pain severe and stricture very tight. At 9 P. M., an oleate of cocaine, 4 per cent., was applied to the urethra; after great persistence the soft rubber catheter was introduced into the bladder; the pain and nervous excitement

were so great that the catheter was clamped at the end and allowed to remain in place all night, directions being given to remove the clamp and allow the urine to pass at 1 A. M. and at 5 A. M. The catheter caused no inconvenience. On January 8, at 10 A. M., the urine was passed through the catheter, and the catheter then taken out. At 8 P. M., the catheter was introduced after much difficulty and severe pain and nervous excitement. On January 9, at 9.45 A. M., the catheter was introduced; the pain and nervous excitement and prostration following its introduction were so great that I determined to leave the catheter in the bladder, so, after clamping it, I gave directions to remove the clamp at 1, at 5, and at 8 P. M. The catheter was removed at 8.15 P. M. On January 10, at 10 A. M., the pain on introducing the catheter was not severe, and the spasm less marked. At 9 P. M. there was very little pain or excitement on introducing the catheter. On January 11, at 11 A. M., the introduction of the catheter caused no pain. On January 12, at 11 A. M., she urinated without assistance.

During the entire time of the spasmodic stricture the patient was taking the bromide of sodium and the bromide of potash, in fifteen grain doses every three hours, and the elixir of the valerianate of ammonia in dessertspoonful doses, but they did not appear to exert any influence on the spasm. In the beginning of the trouble I thought the urethral orifice might be irritated by the vaginal discharges, and to correct the acridity of them I ordered syringing the vagina with a solution of Tyree's compound antiseptic powder. This powder is a combination of carbolic acid, alum, borate of sodium, glycerine, the crystalline principles of thyme, eucalyptus, gaultheria and mint. While this solution had a most pleasing and soothing effect upon the patient it did not in the least affect the stricture. After the recovery of the patient, she informed me that her aunt suffered in the same way at her confinement; so there appears to be in this case an hereditary influence.

Stricture of the urethra occurs frequently after confinements, but if I can credit the unsupported statements of physicians, to whom I have mentioned my experience, they can not have the degree of persistence as in this case, or mention of it would have been made in text-books on obstetrics. While the four per cent. solution of hydrochlorate of cocaine has given me good results generally, I can not see why it should have failed me in this case.

Society Reports.

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

SEVENTEENTH SESSION AT ORAN, ALGERIA.

(Reported by Arthur C. Hugenschmidt, M. D., Paris.)

First Day, March 29, 1888.

The seventeenth session of the French Association for the Advancement of Science opened on March 29, under the presidency of Colonel Laussedat, Director of the Conservatoire des Arts et Metiers, who delivered his opening address on "The Civilizing Influence of Science as Applied to Arts and Manufactures."

The Section on Medical Science, which is the one that interests us, had not so many members present as at the preceding meeting, which is certainly due to the choice as a place of meeting of the city of Oran, in Algeria, which is separated from France by about four hundred miles of sea. Many members remained at home, rather than risk a sea voyage, so that most of the men known by foreigners, or belonging to and characterizing French medical literature, did not appear. Amongst the members present were Prof. Verneuil, Drs. Blanchard, Delisle, etc. (Paris); Prof. Grasset (Montpellier); Gross (Nancy).

Section on Medical Science.—Honorary Presidents—Dr. Verneuil (Paris); Dr. Mondot (Oran).

President—Dr. Grasset (Montpellier).

Vice-Presidents—Dr. Cros (Oran); Dr. Fonteneau (Oran); Dr. Gross (Nancy).

Secretaries—Drs. Tinier and Bourdorim (Paris); Levy (Oran).

Second Day, March 30.

Prof. Grasset, President.

Treatment of Diphtheria with Perchloride of Iron and Milk.

Dr. Mohammed ben Nekkach (Inkermann), has treated twenty-one diphtheritic patients with perchloride of iron and milk, and has obtained twenty cures, and lost a child of six months. Among the twenty cured are two adults. All these diphtheritic patients have been treated from the beginning of the disease before the period of asphyxia or intoxication. Outside of these twenty-one patients, six others have died; two have refused to follow the treatment; one has been treated by another method in a neighboring town; a fourth one did not follow the treat-

ment accurately; and, finally, the two last are mere cases in which he was called too late by the parents. "To all these patients, most of whom were severely taken," he says, "I gave 25 to 30 gtts. of perchloride of iron in a tumbler of water (this solution being renewed every time it was used up); one quart of milk a day was given. A tablespoonful of each of these preparations was administered every five minutes. In addition to this medication, I have prescribed emetics and painted the throat three times a day with a strong solution of perchloride of iron, which, while taking away the false membrane, at the same time cauterizes the subjacent surface."

He states that when perchloride is administered from the beginning of the disease the false membrane does not extend, but the disease becomes localized.

DR. GIBERT (Paris), remains skeptical as regards the local action of perchloride of iron; he uses it as a tonic, but employs other agents in addition.

Curetting the Uterus in Endometritis.

MME. SARRAUTE presents seventeen cases of curetting of the womb for this affection, with successful results. She uses the ordinary method, but with strictly antiseptic measures. She has remarked on several occasions that this intra-uterine treatment, while ameliorating or curing diseases of the uterus, had often a very beneficial influence on the state of the laryngeal apparatus, stopping its congestion and rendering the voice more clear.

PROF. GRASSET (Montpellier), does not find it surprising that the laryngeal phenomena should have been modified after a uterine treatment, knowing the relations which exist between the genital and laryngeal apparatus, but he is disposed to think that the modified phenomena were nervous phenomena (paralysis or paresis of the glottis), instead of congestive phenomena.

Valvular Canula in the Treatment of Empyema.

DR. ROGEE (St. Jean d'Angely). After the operation of empyema we often have a small atrophied lung unfit for respiration, with or without a pleuro-cutaneous fistula, which must often be completed by Estlander's costal excision. M. Le Fort, at the last Congress of Surgery, asked whether it was not due to the fact that we leave the opening in constant communication with the exterior air, which freely penetrates into the pleura and presses on the lung.

I have done the operation for empyema twice and have had complete success in both cases. I attribute this success to the apparatus I am using, which prevents the exterior air being felt in the pleural cavity. This apparatus is composed of a canula with two valves, the action of which is a complex one. To these valves is due the fact that the compressed lung is obliged to dilate again. Every time the patient coughs the air contained in the pleural cavity is expelled but cannot return, and so little by little a vacuum is established, which obliges the lung under the intra-pulmonary pressure to expand towards the thoracic wall, while the thoracic wall itself has also a greater tendency to be compressed on the lung through the action of the pressure of the external air, which is no more balanced by the intra-pleural pressure.

On Israelite Circumcision.

DR. MONDOT (Oran), exhibited the *modus operandi* of circumcision as practiced by the Israelites. Having shown the instruments, he described the Jewish method. The first incision always produces a section of the skin, much inferior to that of the mucous membrane; then, instead of incising anew the mucous membrane of the prepuce lower down, the rabbin tears the mucous membrane vertically down to the skin in the median dorsal line. The mucosa of the prepuce is then turned down on the penis as the collar of a shirt. The dressing, which is composed honey and styrax, is then applied and kept there for six or seven days. The hemostatic method used is a primitive one, namely, suction of the cut parts with the lips of the operator. He has never met any cases of syphilis transmitted to the child by the mouth of the rabbin, when he performed suction.

DR. SEGUY (Oran), thinks that hemorrhage does not take place after circumcision as practiced by the Jews, on account of the tearing of the preputial mucous membrane. As to syphilis, it is such a common affection amongst the poorer classes of Jews in Algeria, and so much mixed up with scrofula, that it is a difficult matter to find out what really belongs to the child, or what might have been communicated to him by the rabbin.

Mechanism of Death by Decapitation.

DR. PAUL LOYE said: Decapitation, as I have studied it, is very simple and very uniform in its *modus operandi;* it is the complete and rapid section of the neck at a certain level by a cutting instrument. The result ought then to be the same in every case,

placing the individual in an analogous condition, and bringing on death in a similar manner. Such, however, is not the case. If the operation is a simple one the lesions produced are very complex and show themselves as hemorrhages, asphyxia, excitations, paralyses, inhibitory and vasomotor phenomena, etc. The slightest difference in the stroke will produce a notable difference in the individual. I have found, for instance, great difference in a dog or in a man. In the dog we observe very extensive movements, general convulsions, in the head as well as body. In man, however, death is calm, without movements or convulsions; the physiognomy does not change, the body remains motionless. The difference is due to the fact that in dogs death comes with asphyxia. The blood which is left in the head or body can be no more oxygenized, nor get rid of its carbonic acid; moreover, the blood comes out rapidly and leaves the tissues without oxygen; these facts explain the convulsions of asphyxia.

In man these convulsions do not take place, because we have here another factor, the irritation of the nervous system described by Brown-Séquard, which brings on death by arrest, by inhibition. Under the influence of this irritation there is an immediate suspension or abolition of the reflex or auto-motor power of the spinal cord and nerve-centers; and if this auto-motor power is abolished, the asphyxiated blood can have no more action, produce no convulsions. It is also admitted, that in death by inhibition, there is an arrest of the exchanges between the tissues and blood; the blood remains red in the veins. We have then blood which does not become of the asphyxic kind, and on the other hand, nerve-centers which have lost their auto-motor excitability. Under these conditions there can be no convulsions nor general movements. The study of decapitation in dogs and men gives us an example of two types of rapid death. On the one hand asphyxia, accompanied by its convulsions; on the other inhibition—quiet death produced by an immediate arrest of all the functions of the body.

Dr. Vincent (Oran), asked the reason of this difference in the mechanism of death between men and dogs? In the man who is guillotined, he thinks that the weight of the knife striking the neck produces an intense cerebral commotion, which is not experienced by the dog which is killed in a laboratory.

Dr. Loye does not admit this reason, for if there is cerebral commotion, signs of asphyxia would be present in the rest of the body.

Dr. Moreau (Algeria), thought this difference might be explained on the ground that man knows beforehand what will happen, while the dog is absolutely unconscious.

Dr. Milliot (Bugeaud). It is said that in decapitation section always occurs at the third or fourth vertebra; this is a great interval. In such a region it is necessary to be more precise, and to know centimeter by centimeter what a lesion can produce.

Dr. Loye, in answer to Dr. Moreau said, that he had seen two men just before their execution by the guillotine; one was most frightened and terrible to observe, the other was perfectly calm; both presented the same phenomena after death. In answer to Dr. Milliot he said, that certainly a centimeter is important, but that his line of section had passed between the first, second, third to the seventh intervertebral space, and all gave him the same result.

Prof. Grasset thanked the author for his most interesting communication, but said he was an unbeliever in the inhibition theory of death.

Special Deformity of the Hands of Glass-makers.

Dr. Rollet (Lyons), draws attention to a special deformity he has observed in glass-makers, who have been at work for several years. There is a permanent flexion of the second phalanx on the first, specially the ring finger. At the beginning there are no signs of muscular atrophy or subluxation, which later render the disease almost incurable. This hook-hand is peculiar to glassmakers who handle the cane; it is a spasmodic contraction of reflex origin. It is an entirely different lesion from the contraction of the palmar fascia.

Dr. Grasset regards this as another example of professional spasms; it is, he says, a new element for the study of peripheral amyotrophies. It begins by a simple contraction, then ensues a neuritis, and finally muscular atrophy.

On a New Form of Painful Arthropathy.

Dr. Poncet (Lyons), draws attention to a new form of arthropathy, which is characterized by continuous violent articular pains, which have appeared in a long diseased articulation, without any apparent causes or complications. "I have made," he says, "three observations, in all of which the patients had been affected for several years with old arthritis of the knee and hip-joint; twice the articulation had suppurated, but fistulous tracts persisted, and it was only after fifteen or twenty years that pain supervened."

In one case, a young woman, 27 years old, of neurotic temperament, for the past ten years had walked on crutches. After having etherized her, I straightened the limb and applied superficial irritation with the thermo-cautery, and then applied a silicated bandage. The patient as soon as she recovered from the ether complained of terrific pains in her knee and corresponding extremity. I gave her morphia injections without relief, and during the night I had to open the bandage, but the pain remained the same, and kept on for some time. At the end of three weeks she suffered a little less. Since then, five years after my interference, the articulation has always been the seat of pain coming on at irregular times. The extremity is atrophied, and as soon as she touches the floor with her feet she gets those fearful pains.

In two other patients who were suffering a very great deal, and whose limbs became useless, I performed amputation. One of them died after disarticulation at the hip-joint, necessitated by the atrocious pain she complained of in the whole lower extremity and coxo-femoral articulation. In the last case, a woman, 36 years old, who had had for eighteen years a suppurating arthritis with fistulous tracts, was taken with severe pains in 1883. I saw the patient two years afterwards, and tried in every available way to procure her relief. Not succeeding, I amputated the lower third of the thigh. From that moment the pains ceased, and have not re-appeared for more than two years after the operation.

This arthralgia develops itself in old articular lesions not yet cured, and of variable nature. From our observations, the articulation of the knee seems to be predisposed to it; and this form of neuralgic arthralgia seems to be found exclusively in women. The prognosis is a very doubtful one, no medical treatment appearing to be of any use. The surgical intervention must be a radical one.

Antipyrin, Antifebrin and Solanin.

Dr. Sarda (Montpellier), communicated a paper on antipyrin and antifebrin in nervous disorders, and compared them with solanin. He had made one hundred and thirty observations. The first two drugs are excellent nervous sedatives; but they have not an absolutely parallel action; antipyrin is very useful in acute articular rheumatism, in hemicrania, and neuralgias of recent date; in all these cases the superiority of antipyrin is undeniable, as it is also in paroxysmal pains of any nature.

Antifebrin is inferior to antipyrin when it is necessary to combat the above-mentioned pains; it is as good as the former in ataxic pains and chronic rheumatism. In neuralgias of long standing, the superiority of antifebrin is certain.

Against excito-motor phenomena, epileptoid trembling, exaggerated reflexes and tremors, antipyrin gives unsatisfactory results; it has given no great success in reflex spasms of hysterical patients, and has given negative results in painful facial tic. In all these cases, with the exception of paralysis agitans, antifebrin is much better. These two drugs are very rarely followed by accidents, such as vomiting, exanthemata, profuse sweats. Antifebrin is the better supported by the stomach.

Solanin is a nervous sedative which is very useful whenever one wishes to have a depressant action on the spinal cord or medulla; it produces a paresis of the motor nerves, and anæsthesia of the sensitive nerves. It is not efficacious in acute articular rheumatism; it is very useful in muscular rheumatism; acts as well as antifebrin to allay the pain in gastric ulcer, as three of my observations show. It is much superior to both antipyrin and antifebrin in the treatment of old and persistent sciatica, especially in cases of neuritis. It has also an excellent action in ataxic pains. Solanin is a most precious drug as a moderator of motor excitation. Out of two cases of chronic myelitis with fulgurating pains and epileptoid trembling the results have been remarkably rapid and constant. Pain and tremor have been suppressed. In a case of sclerosis in patches with very extensive tremor of the left upper extremity, the results have been still more remarkable; after four days treatment the tremor had almost disappeared, and did disappear completely on the sixth day. In paralysis agitans, painful facial tic, post-hemiplegic hemiathetosis, the results are less certain; but the doses have been too small to allow us to doubt the efficacy in these last cases. The average dose is 5 to 6 grains in the twenty-four hours.

Dr. Grasset said: I insist on the therapeutic value of solanin, which has, however, one objection: it costs two dollars for every 15 grains. It is specially used in medullary symptoms produced by lesions of the lateral column. It is very useful against epileptoid tremors and tremors of sclerosis in patches.

Mycosis Leptothrix of the Pharynx.

Dr. Moure (Bordeaux). Mycosis of the pharynx was described for the first time in 1873, by Fränkel, of Berlin. It is a

very common affection, much more so than is thought, and I myself have given up the record of these cases. The etiology, very obscure, is like all the non-diathetic chronic affections of the pharynx. The functional symptoms may all be missing; they are habitually those of granular pharyngitis. On examination you find, on the tonsils or base of the tongue, little tufts projecting above the mucous membrane; they are sometimes uniform or irregular on their surface, yellowish white in color, and detached with difficulty on account of the penetration of the parasite into the mucous membrane. In an anatomico-pathological point of view, these white tufts are composed of leptothrix buccalis. Inoculation of the same have given negative results. The treatment consists in extracting the tuft and cauterizing the point of implantation with chloride of zinc or lactic acid, or better with the thermo-cautery or galvano-cautery. Hering has found in one case in which he extirpated the tonsil that the parasite had penetrated to the extent of one-third of an inch. This affection has no general symptoms; it is very much like granular pharyngitis. No diathesis seems to favor the appearance of the disease.

Effects of Hydrofluoric Acid in the Treatment of Diseases of the Respiratory Passages.

DRS. MOREAU and COCHEZ (Algeria). Of sixty patients in whom they have employed this treatment, twenty-eight have been ameliorated, four remain in a stationary state, nine have grown worse, four died, eleven disappeared after the first or second consultation, four suffered only with asthma and chronic bronchial catarrh. If this method is not an absolute cure, it is useful and has never appeared useless. We must, however, determine which cases are more apt to derive benefit from this treatment. Hydrofluoric acid appears to act by exciting the appetite, modifying the nature of the bronchial expectoration, and probably in destroying the microbes and their infectious products in that secretion, and possibly in the pulmonary tissue itself. The inhalations are well supported, produce no conjunctival irritation, but a little irritation of the teeth.

DR. LAUSSEDAT said that at Cannes, Dr. Chuquet, who had been experimenting, had found that all non-advanced tubercular patients were stimulated by inhalations of hydrofluoric acid; he saw their appetite return, but he had never seen the cavities in the lungs beneficially influenced. He has also observed that those patients who had, and those who had no cavities, always had Koch's bacillus in the sputa in the same proportions.

DR. LOYE thinks the anti-microbe action of this acid is not demonstrated. He also does not believe in those very difficult and complicated ways of establishing inhalation-rooms for the treatment with this gas.

Third Day, March 31.

President, DR. GRASSET.

DR. PAULY (Oran), read a paper on

The Algerian Climate; Resistance of the Algerian Cattle to Certain Contagious Diseases.

DR. BRÉMOND (Oran), read a paper, giving an account of the resistance of the Algerian cattle to malignant pustule and sheep-pox. He then demonstrated that immunity is acquired and lost according to the conditions of living.

PROF. VERNEUIL (Paris). The question of immunity is a very contested one; one ought to enquire whether immunity is not due to the fact that the animal had already contracted the disease while very young, or perhaps, that it is issued of parents already vaccinated or which had suffered from the disease. It would be an interesting fact to follow a bull which may have been spontaneously cured and search whether his descendants are also preserved from anthrax. Another question interests me, the one of latent microbism. When a bull has been cured I would like to have him under observation for months, and have his blood accasionally examined to see how long convalescence persists; for we know that if a vaccinated bull several weeks after this operation wounds himself, at the wound *minoris resistentiæ*, appears sometimes an anthrax tumor. In human medicine we have similar facts: a man cured of typhoid fever is apparently well; for one reason or another he gets an abscess; if you open it you will find in it the microbe of typhoid fever.

Abnormal Forms of Cancerous Cells.

DR. NEPVEU (Paris). I desire to draw your attention to certain rare cellular forms, which I have met in certain epitheliomas of the tongue and penis. In all these cases the epithelioma had invaded the deep tissues and the glands themselves.

The first type consists of small, nearly round cells, epitheloid, with one or two very fine prolongations, equalling one, two, four, five times and more the diameter of the length of the cell; which prolongations terminate sometimes by a free extremity, at other

times by a finely granular swelling, fusiform in appearance, sometimes terminating on one of the irregular borders of an epithelial cell of large volume.

A second type, which the author has termed conjugated, is a little different. The cell instead of being round is oval, with a rounded head; one single prolongation longer than the preceding one presents a fusiform swelling in the middle of its length and at the extremity of a break at the point of insertion on a neighboring cell. The clearest forms are those in which two cells, clearly epithelial, are united by a more or less long prolongation. Some of these conjugated cells are of different types. Some are irregular and show at their angles very fine ramifications; the others are very large flat cells, although also fusiform. One can see the polygonal cells united by a prolongation to one of these flat cells.

It is not rare to see epithelial cells presenting three or four prolongations, which it has been impossible to follow in all their extent; but everything makes me think that, like the others, they are united to other cells. In a word, in deep epitheliomas, one can find epithelial cells with ramified and multiple prolongations like the multipolar nerve cells. These prolongations unite epithelial cells to each other. These cells called conjugated, are formed sometimes by young cells united to an old, well-developed one; sometimes by well-developed cells united to each other. In certain cases it appears that these epithelial cells are united to fusiform but flat cells, analogous to certain cells of connective tissue.

Tuberculosis in Those Living at Mineral Springs.

DR. LAUSSEDAT (Royat) finds that, while tuberculosis was very rare at Cannes twenty-five years ago, it is at present very common, especially in children and young people, without one being able to trace it to heredity. This is especially due to the dissemination of the tubercle bacillus brought there by tubercular patients. Hence it becomes necessary to have the schools kept absolutely clean, and the furniture which has been used by phthisical patients thoroughly disinfected, or even destroyed.

Intra-venous Injections of Salt-water.

DRS. P. LOYE and DASTRE. If one injects into the veins of a rabbit salt-water containing 7 gms. of chloride of sodium for each 1000 gms. of water, one can, on following certain indications, throw into the circulation an indefinite quantity of liquid, equal to, and even greater than the weight of the animal. The most important fact is that the injection should be made in a definite manner, not more than 2 grammes being injected per minute for each kilogramme of the animal's weight, and that the liquid should have a temperature of 102° to 104°. Under such conditions we find that there exists in the organism a real regulator apparatus for the quantity of water in the blood. Every time that in a rabbit weighing three kilogrammes, you inject into the blood 300 gms. of salt-water, the animal will urinate; and then, if the injection is continued, the animal continues to urinate, keeping in his circulatory apparatus the same quantity of 300 gms. of salt-water. From this fact there is a regular parallel between the number corresponding to the injection of salt-water and the number indicating the emission of urine. Gradually the urine loses its turbid and yellow appearance and becomes absolutely clear. You can in this manner, allow the passage into the circulation of an indefinite quantity of water. During all these operations, the blood pressure is not changed.

If you put more than seven grammes (2 drachms) of chloride of sodium to a litre (two pints) of water, you get a temporary glycosuria. The injected liquid remains in the blood, the aqueous portion of the same being then increased. He has also never noticed any bad effect on the kidneys.

DR. GRASSET. These injections might help us to increase diuresis, and a washing out of the blood. This is what we do when we give large enemas of water to patients with jaundice. The water is absorbed by the intestines, thence taken into the vascular system, and is finally rejected by the kidney loaded with bile.

Experimental Researches on Submersion.

DRS. P. LOYE and BROUARDEL. If a dog be suddenly plunged under water he will die in three and a half to four minutes. He first takes a very deep inspiration, called "surprise inspiration," which fills a great portion of the respiratory passage with water. Sometimes a second inspiration will take place, then the period of resistance appears, the animal has stopped inspiring. This lasts a few moments, and is accompanied by general movements. Then he begins to inspire again and the movements stop. Finally, respiration stops, sensibility is lost, and the animal is dead. If we observe the circulation, we will find the heart's movements diminish one-third or one-half, but the strength of each beat is increased as well as the blood-pressure, and they remain so until death; the beats are sustained, but the blood-pressure decreases gradually until the last inspiration is taken,

when it is down to zero. The heart, however, will still continue to beat for about fifteen minutes after the last inspiration, the blood-pressure remaining at zero. The period of resistance which follows the deep inspiration is not due to the will, for we find it in tracheotomised dogs, but is due to an action on the superior laryngeal nerve, which brings reflexly into action the respiratory nerves. The water introduced into the lung will help to dilute the blood, before and even after death. The legal physician who is called to determine whether a drowned person was alive when thrown into the river, or if he was already dead, tries to get his information from the state of the blood as to its being coagulated or not. He concludes that death occurred by submersion if the blood is found liquid. But we have just seen that water will pass into the circulation after the patient is really dead, and that even in drowned persons the blood will be found coagulated if examined soon after death; the blood will also be found liquid in the large vessels and right heart.

On the Use of Biniodide of Mercury in Surgery.

Dr. Rogee (St. Jean d'Angely), claims for it that it does not irritate the wounds. It is a much stronger antiseptic than carbolic acid, and an alcoholic solution of 1 to 300 can be mixed in all proportions with warm water. It is much less expensive than Lister's dressing. He has used it in 108 operations, 32 being major operations, with one death. On an average, cicatrization was obtained in seventeen days after an amputation of the thigh in a malarial patient, and in ten days after herniotomies.

Spinal Meninges in the Sacral Canal, and the Filum Terminale.

Dr. Trolard (Algeria). The classical authors give as terminations of the dura mater and arachnoid, *cul-de-sacs* at the end of the sacral canal. Even in children this *cul-de-sac* stops on a level with the second sacral vertebra, the canal from this point being filled with nerve branches and a great deal of adipose tissue. A fact worthy of notice is that the ganglions of these nerves are situated in the canal itself. As to the filum terminale, it is probably the common trunk of the two last pairs of spinal nerves; if one examines it carefully he will find that it is divisible into these nervous branches, but its termination is very variable.

Lakes of Blood of the Dura Mater.

Dr. Trolard describes them as follows: The veins which open into the superior longitudinal sinus are described as opening into that canal in a direction contrary to the blood current. This is not quite true. The little veins, especially the anterior ones, open directly, or from before backwards, into the sinus. As to the two or three large veins, they communicate with the sinus from behind forward. But one must not overlook the fact that these anastomotic veins place in communication the superior longitudinal sinus with the superior petrosal and lateral sinuses. These anastomotic veins which are accessory to the great sinus must have the same direction that this last one had.

Reports of Clinics.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

MEDICAL CLINIC—PROF. PEPPER.

Lithæmia With Grave Nervous Symptoms.

The patient is 29 years of age, a physician by profession, having graduated from the Medical Department of the University of Pennsylvania in 1885. His family history is remarkable for the singular unanimity with which all its members are disposed to disease of the same organ—the kidney. His father and mother were both of a markedly nervous diathesis; throughout their lives they both exhibited a strong tendency to renal troubles, and, finally, both of them died of Bright's disease. An uncle was afflicted with *petit mal*, and three brothers and a sister of the patient have all, without exception, gout and gravel. While yet a child, he had an eclamptic seizure produced by the passage of some renal calculi. Speaking generally, however, such attacks in childhood have but trifling significance, slight causes being sufficient to produce them.

The patient has always been rather sickly, and yet, in spite of his want of bodily vigor, he has been a hard-working and faithful student. He pushed his way through the University of Virginia, and subsequently came here and graduated in medicine. Eight or ten years ago, while he was still pursuing his studies in the South, he first became aware of the fact that occasionally on awaking in the morning his tongue was more or less lacerated around the tip and edges, as though it had been bitten. About this period, also, he began to have irregular attacks of nervous prostration and violent headaches, which were relieved only by free

purgation. During his term of study in this city, he was an almost constant sufferer from nervousness and lithæmia, being treated at odd times for gravel, sciatica, insomnia, etc. He was told by his room-mate while here of the occurrence of nocturnal epileptic seizures, and in these was found an explanation of his wounded tongue. During the last few years the symptoms of renal trouble have become much more prominent. He is not conscious of having passed any calculi for a very long time, but he complains of severe and continuous pain originating over the region of the right kidney, extending down the ureter of that side, and thence along the course of the genito-crural nerve in the groin and to the bottom of the testicles and scrotum. As often as once or twice a month a sudden exacerbation of this pain precipitates a series of convulsive paroxysms which are most violent. The muscular contractions attending them are tonic in character and limited usually to the right side, the leg and arm being drawn up and held rigid for five minutes or more. Then there is a period of relaxation, lasting generally for about twenty minutes, and this is followed by a recurrence of the spasm. A series of these phenomena may endure for a few hours only, or continue throughout two days. During such attacks there is no loss of consciousness, but the patient says he feels as though he would become insane at times from the agonizing pain that accompanies them. Within a comparatively recent period, also, he has had four epileptiform seizures, *petit mal*, occurring in the daytime, and characterized by a very transient suspension of consciousness, a momentary fixation of his eyes, and slight twitching of some of his muscles.

Examination of the urine shows it to be typically gouty in character. It is of high specific gravity, acid in reaction, high colored, and loaded with urates.

We have here, then, a long and connected history of renal derangement occurring in a man the members of whose family are all strongly disposed to kidney complaints as well as to various neuroses. His disease is inherited; it first gives evidence of its existence in early childhood, and it continues and gains strength with advancing age. When about 19, the patient begins to have attacks of nocturnal epilepsy, occasional fits of nervous prostration, severe headaches, etc. In spite of these difficulties, however, he continues his studies, graduates from college, and enters upon the practice of his profession. At this time we find his symptoms becoming of a mixed character. In addition to the nocturnal epileptic seizures, he has several attacks of *petit mal* in his waking hours, and, besides these, on two or three occasions he tells us, prolonged periods of unconsciousness, without, however, any convulsive phenomena. These latter are known by the name of "status epilepticus." Moreover, the symptoms of urinary disturbance take on increased energy; he suffers from constant pain over the right kidney and in the right groin. Once a month, or perhaps, oftener, this pain undergoes a sudden and intense aggravation, and, at such times he has simultaneous attacks of right-sided convulsive seizures, and, sometimes, when the pain is unusually severe, the arm of the left side participates in these movements. These seizures are in the highest degree interesting and curious. They are certainly not epileptic for throughout their entire duration, be it brief or prolonged, perfect consciousness is maintained. To such attacks as these is given the name of "hemi-spasm." Their occurrence is ascribed to the irradiation of powerful motor impulses proceeding from nervous centres, which are kept in an almost constant state of irritation and excitement by the morbid condition of the blood which nourishes them. From time to time there occur periods when defective coordination between the great abdominal viscera, the kidneys, liver, and stomach, is followed by serious vitiation of the blood. The processes of secretion and excretion are interfered with or temporarily suspended, and the blood becomes loaded with effete products which, when in sufficient quantity, quickly manifest their power of exerting an actively poisonous influence. The nervous centres, bathed in this toxic fluid, become intensely irritated, they become even more morbidly sensitive than usual, until, finally, when nervous tension has reached a point beyond which it cannot go, there is a sudden explosion of force manifesting itself in these violent muscular contractions. At such moments comparatively slight causes are sufficient to overthrow all inhibitory influence, and give free rein to these irregular exhibitions of energy. In this particular case, these phenomena are brought out with exceptional clearness.

Now, after this hurried rehearsal of the more important points of the case, we have to ask ourselves first, What is the source of the intense pain which precedes and gives rise to these attacks of hemi-spasm? During the periods when it is present, it is too persistent in character to be regarded as neuralgic. Upon considering the region from

which it takes its origin, and the course over which it travels, our attention is strongly attracted to the right kidney. As I review in my mind the history of this man's sufferings, his undoubtedly gouty diathesis, the many significant symptoms he presents of renal disorder, and the frequent and severe reflex disturbances which have that region for their starting-point, I am led by the mass of accumulated evidence, to believe in the existence of calculous deposits in the substance of this right kidney. The calculi are certainly not contained in the pelvis of the kidney, because urinary examination negatives the existence of pyelitis. I am the more strongly inclined to put faith in this diagnosis, because I remember with painful distinctness, an obscure case, closely resembling this in many of its leading features, in which the autopsy disclosed a number of calculi disseminated throughout the substance of one kidney. In case, therefore, other methods of treatment should fail to give this patient relief, I shall strongly urge upon him the propriety of having his suspected kidney removed.

Preparatory to any resort to surgical measures, however, I shall put him upon the following plan of treatment: In the first place, to obtain a strong and continuous counter-irritant effect, we will establish an issue over the diseased organ. Second, a powerful galvanic current will be passed at intervals through the centre of the area of disturbance. Third, a plan of diet will be adopted which will largely diminish the formation of uric acid, and of which milk and cereals will be the principal components. Fourth, and last, a course of bromides will be prescribed by which 7½ grains each of the potash and soda salt will be administered three times daily.

In addition to these more important points of treatment, a system of graduated and regular exercise will be carried out, which will prove of much assistance, not only by improving the patient's general health and vigor, but by diverting his mind and preventing it from dwelling upon his malady.

—A physician in the *American Magazine*, illustrating the evil custom of talking to an invalid about his pains, says that once he requested a mother to mark a stroke upon a paper each time that she asked a sick daughter how she was. The next day, to her astonishment, she made one hundred and nine strokes. A three months' visit away from home was prescribed.

PERISCOPE.

The Antiseptic and Antipyretic Treatment of Phthisis.

Dr. W. H. Spencer, Lecturer on Medicine, at the Bristol Medical School, England, in the report of some cases illustrating the antiseptic and antipyretic treatment of phthisis (*British Med. Journal*, January 28, 1888), speaks as follows with reference to the use of iodoform and eucalyptol:

"1. I see no reason to doubt that, when iodoform is given in doses which the stomach will tolerate well, and given frequently and continuously for long periods, it is absorbed into the circulation; and in the lungs, in whatever form it be, manifests its antiseptic (shall I also say, antibacillary?) properties. The good effects of iodoform so administered, in phthisical conditions, is too unequivocal to be gainsaid.

"2. I see no reason to doubt that, when the vapor of the oil of eucalyptus (or other antiseptic vapor that can be tolerated equally well) is inhaled continuously and for long periods, it reaches the residual air in the lungs; and so externally, as it were, bathes the affected tissues, or suppurating cavities, which may be open to the ingress of the air.

"3. That so, I apprehend, we may have antiseptic remedies, not antagonistic, brought up on two sides to the sites of inflammatory lung lesions, or the sites of bacillary activity; and these antiseptics, mutually co-operative, do affect for good both the inflammatory process and the bacillary activity, and bring about repair by the mode of organization after suppuration or fibroid substitution.

"4. And further, let me say, that I think it is both correct and desirable to treat the pyrexia of acute phthisical processes, whether the temperature be high or moderate, by and for itself. I think no other special antipyretic than quinine should be used in phthisis; and quinine serves other purposes as well when used as an antipyretic in moderate doses." He sums up the whole of his paper in some remarks on what he conceives to be the practical outcome: "In our treatment and general management of these cases, it is our aim to promote or bring about healing of the damaged lung tissue, and this by means of fibroid substitution. In order to attain this end, we must secure the same conditions and adopt similar measures, if we can by any means compass it, to those we find successful in dealing with suppurations, ulcerations, and the like lesions, in parts exposed to view. To secure these conditions, we should adopt measures for supplying adequate nutrition—

that is, adequate anabolism of tissue and the storing of energy—in the body generally, and in the damaged part in particular. We should deal with pyrexia on its own account, as a general and constitutional state, apart from the local suppuration or ulceration (as by quinine). We should bring the lesion under the influence of antiseptic remedies, both by internal medication (as by iodoform), and by external applications (as by inhalations of eucalyptol); and the application and influence of the antiseptic should be complete, continuous and prolonged."

Simultaneous Presence of Cancer and Tuberculosis.

In *Virchow's Archiv*, Bd. cxi., Heft 2, Feb., 1888, Dr. Otto Lubarsch, of Breslau, in a communication upon primary cancer of the ileum with some remarks upon the simultaneous occurrence of cancer and tuberculosis, concludes that:

1. The relatively infrequent occurrence of cancer and tuberculosis in the same person, is not adequately explained by reference to the different periods of life during which these two diseases are most frequent.

2. It is not true that cancer of a particular organ, such as the œsophagus (Lebert) predisposes to tuberculosis.

3. Acute infectious diseases, as well as phthisis, are proportionately much rarer in patients with carcinoma than in non-carcinomatous patients of the same age.

4. Tuberculous affections, as well as chronic local wounds, may favor the development of a cancer.

Spontaneous Expulsion of a Fœtus after the Death of the Mother.

In the *Deutsche med. Wochenschrift*, December 15, 1887, Dr. Theopold says that during the inspection of the dead body of a woman, the fœtal head surrounded by the membranes was expelled from the vulva. This statement was sent to him for his *superarbitrium*. The woman, who was far gone in pregnancy, had died of hemorrhage. The neighbors, who had been summoned by the husband, found her dead. The corpse had lain fourteen days in the grave, and was exhumed on a hot day in August, and had been exposed some time to the open air. The belly of the woman was greatly puffed up with gas. Evidently the pressure of the gas, the tension of which had been raised by the heat, had expressed the contents of the uterus.

The suspicion that the husband had ill-treated his wife and so caused her death led to an official autopsy, and the disagreement of those who conducted this autopsy to the giving of a *superarbitrium*. It was assumed in the latter that birth had begun and that premature separation of the placenta had been the cause of the fatal hemorrhage. As the autopsy did not reveal definite traces of the woman having suffered ill-treatment, and as there were no witnesses to any, proof of a crime could not be adduced.

Complex or Vertical Hermaphroditism.

At the meeting of the Pathological Society of London, Feb. 21, 1888, Mr. Stonham exhibited a case of complex or vertical hermaphroditism. The child had been operated upon for hernia, and the contents of the sac were returned to the abdomen; the wound suppurated, and the patient died. The external organs were of the male type, with undescended testes; the bladder was normal in size and shape, and its neck was surrounded by a prostate. Behind was a vagina and uterus, the latter being devoid of a projecting external os, but having a distinct cervix. On each side of the uterus were testes, and below them Fallopian tubes and epididymis. The family history was interesting, one sister having a bifid nipple, and two brothers each a well-formed penis and scrotum, but no testes. Mr. Sutton thought the case proved that the prostate was homologous with the cervix uteri. Mr. Jonathan Hutchinson Jr., opposed this view.—*Lancet*, Feb. 25, 1888.

Tumor of the Stomach produced by Hair; Gastrotomy; Recovery.

John Berg, who reports this case, states that the patient was a married woman, twenty-six years old, who had suffered from the third year of her age with dyspeptic and anæmic symptoms, but especially with vomiting of mucus. A tumor in the epigastrium had become evident since her tenth year, and had developed rapidly during the past six months. She entered the hospital in Stockholm in May, 1887. At that time there could be felt in the epigastrium and in the left hypochondrium, between the prolongation of the right parasternal line and the left mammary line, a tumor the size of a hand, movable, and having a concave superior and a convex inferior border. The tumor could not be displaced toward the region of the kidneys. The spleen was in its normal position. Laparotomy was performed, and in the stomach was found a tumor, which consisted of a bunch of hair.

The patient denied having ever eaten hair, but her mother said that when three years old she was in the habit of chewing and swallowing hair.—*Nordiskt med. Arkiv*, Bd. xix., No. 26, 1888.

Washing out the Pelvis of the Kidney and the Ureters through the Bladder.

In a communication in the *Lancet*, March 10, 1888, Mr. Reginald Harrison refers to the possibility of distending the ureters with fluid, and thus reaching the pelvis of the kidney. In the normal condition of the parts such a process could be brought about only by very gradual means, as the mode of entrance of the ureters into the bladder is such as to render sudden regurgitation of fluids from the latter toward the kidneys well nigh impossible. But in long standing stricture and prostratic obstruction, this valve-like arrangement becomes impaired until the ureters and pelvis of the kidney become little else than subsidiary bladders. The same thing occurs as the result of the passage along the ureters of calculi and suppurative *débris*, as is frequently seen in tubercular disease of the kidneys. It occurred to Mr. Harrison that when such conditions exist fluid might be made to pass from the bladder along the ureters to the pelvis of the kidney. The author then refers to cases in which these theoretical considerations were put to a practical test. In all these cases renal calculi, or fragments of them, were successfully dislodged from the ureters by distending the bladder with fluid.

Treatment of Ranula.

Verchère recommends in the *Archives de Laryngologie* the treatment of ranula by puncture and injection of a ten per cent. cocaine and a one-tenth per cent. chloride of zinc solution. The tumor is punctured with a Pravaz's syringe and emptied by aspiration. The canula is left in the sac, into which is then injected half a syringeful of a ten per cent. solution of cocaine, followed by ten or twelve drops of a one-tenth per cent. solution of chloride of zinc in distilled water. The inflammation which follows is usually not very violent, and recovery is rapid. In the place occupied by the ranula there remains a small nodule, which occasions no disturbance.—*Wiener med. Presse*, March 25, 1888.

Quinine Amaurosis.

Dr. Edgar Browne (*Liverpool Med. Chir. Journ.*) points out the difference between quinine and tobacco amaurosis. Alluding to a case of quinine amaurosis, he says: "The ocular symptoms in this (and other recorded cases) are very remarkable. After an interval of total darkness, recovery commenced by a rapid restoration of central vision, the peripheral retina remaining quite useless both for form and color. The movements of a flame can be perceived all over the field, but not those of the hand or any non-luminous object. Within the central area vision is practically perfect. The patient sees as through a small hole clearly, but nothing above, below, or to either side of him, and as a consequence, though he can read the smallest print, he runs against lamp-posts and upsets people in the street in the most amazing fashion. The condition is exactly opposite to that observed in tobacco (or central) amblyopia, where the patient cannot read print but is able to move about crowded streets, to ascend the rigging of a ship, or avoid vehicles with little or no diminution of his accustomed facility."—*Medical Chronicle*, March, 1888.

Weil's Disease.

In the *Deutsches Archiv für klinische Medicin*, Bd. xlii, Heft. 4, Dr. A. Fiedler gives the following summary of this disease, which was first described by Weil in 1886: It is an acute infectious or toxic disease which has nothing in common with abdominal typhus nor with any other known disease, but is a disease *sui generis*. It begins quite without premonitory disorder, and often suddenly, with a chill. Symptoms always present are fever, headache, gastric disorder, jaundice and muscular pains, especially in the peronei. The fever has a typical course and continues from eight to ten days. Occasionally after the fall in temperature, which takes place gradually, a relapse of the fever occurs. The pulse at the beginning of the attack is frequent, but subsequently becomes sub-normal. The spleen and liver are frequently, but not always swollen, and the liver is often tender upon pressure. Nephritis is frequently present, and at times herpes and erythema. The prognosis is generally favorable. It attacks especially men in the prime of life, and appears preferably in summer. The bearer of the disease is still entirely unknown; but the circumstance that among twelve male patients nine were butchers, makes it probable that men of this occupation are affected in a higher degree, or more easily, by the noxiousness which causes the disease, than are other persons.

—Dr. Schiefferdecker of Göttingen has been appointed prosector of anatomy in the University of Bonn.

THE

Medical and Surgical Reporter.

A WEEKLY JOURNAL,

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M. D., EDITOR.

Original Contributions will be paid for when published; or 200 reprints will be furnished in place of payment, if a request is sent with the manuscript.

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A correct statement of the circulation of THE MEDICAL AND SURGICAL REPORTER is published in each number. The edition for this week is 7,500 copies.

THE SYMPTOMS AND TREATMENT OF HERNIA OF A MUSCLE.

The occurrence of a protrusion of a part of a muscle through an unnatural opening in its sheath has been recognized for many years, and it is known in works on surgery as hernia of a muscle. It has sometimes been confounded with rupture of a muscle; but when correctly understood, the term applies solely to what we have described above. The subject has been well studied by Faraboeuf, about seven years ago, and most recently by DR. AIMÉ GUINARD, of Paris, who reports the results of his study in an interesting paper in the *Gazette Hebdomadaire*, April 6, 1888. In this paper Guinard points out the errors contained in most descriptions of this injury, and gives an explanation of its phenomena which is entirely consistent with the mechanical conditions which must be present. The most conspicuous error in the previous descriptions consists in the assertion that the tumor caused by hernia of part of a muscle increases in size when the muscle contracts. In order to get at the truth in this matter Guinard made a number of experiments on living animals, and found that after removing part of the sheath of a muscle, there was no hernia when the muscle was inactive. When the usual action of the muscle was imitated by force, and it remained inactive, there was a protrusion. This protrusion disappeared when the muscle was stretched by an action opposed to its own. It disappeared also when the muscle contracted while its action was opposed. It diminished in size and became harder when the muscle contracted actively without opposition.

These facts indicate, as Guinard says, the phenomena which ought to be looked for when there is reason to suppose that hernia of a muscle has taken place. A thorough understanding of them compels the conviction that the cases so far reported, in which it is stated that the tumor became larger and harder when the muscle contracted, were really cases of rupture, and not of hernia of a muscle. As stated above, a hernia under these circumstances must become smaller, and not larger.

There is only one other condition in which the phenomena of hernia of a muscle may be present, and that is when the aponeurosis of a muscle is thinned and weakened at some spot, so that it no longer offers the normal resistance to the muscle itself. A case in which this actually occurred is reported by Guinard.

The rarity of real hernia of a muscle gives peculiar interest to two cases reported by GIESS in the *Berliner klinische Wochenschrift*, No. 11, 1886. In these cases the nature of the lesion was established by cutting down upon it. They also afford a means of determining what is the best treatment for this lesion. In one of Giess's cases, strapping and bandaging did no good, and so he exposed the tumor by an incision, snipped off the protruding portion of the muscle with scissors, and afterwards cauterized a new protrusion with nitrate of silver. The result was unsatisfactory. In the second case Giess cured his patient by cutting down upon the protrusion, removing

it with scissors, freshening the edges of the rupture in the fascia, and suturing them with catgut. After this the external wound was sutured, and the limb—a leg—was confined in a plaster-of-Paris dressing.

We call the attention of our readers to this curious and rare lesion, and to the best way in which to treat it, in the hope that American surgeons may contribute something to confirm or correct the views which we cite.

ABUSE OF PRIVILEGE BY PHYSICIANS.

We have so often had occasion to praise the fidelity with which physicians, as a rule, perform the duties of their office, that it cannot be regarded as an evidence of want of appreciation that we call attention to a matter in which physicians sometimes abuse their privileges and misuse their powers. This matter has recently called forth a cutting paragraph in *Life*, April 12, 1888, in which it is stated that there is a medical precedent for the acquittal of Mr. Jacob Sharp, in the case of a Mr. Thomas Gould, who, when sentenced to imprisonment, acquired quick consumption, and, according to the physicians—"one of whom, by the way, is now attending upon Mr. Sharp"—could be saved only by release from confinement.

The point of this paragraph is obvious. Its application is somewhat weakened by the fact that Mr. Gould was set free and is still living, and that Mr. Sharp was kept in prison and is now dead. But this does not impair the force of the principle involved, or dispose of the insinuation that physicians sometimes permit themselves to be used by criminals as a means of escape from merited punishment. There is good reason to believe that this sometimes actually occurs, and when it does occur, it is a disgrace to the profession. The effect of its rare and occasional occurrence is to lower the medical profession in the eyes of courts and of the community; and to weaken the influence which it ought to have with both. The temptation to yield to the entreaties of those who find themselves in the grasp of the law, from motives of pity or to secure a reward of money or notoriety, may have little influence with those who are called to pronounce upon the physical condition of a prisoner; but the world is apt to judge by appearances, and to conclude that what exercises so much influence upon other men may affect the judgment of physicians also.

For this reason, it may not be amiss to call the attention of our medical brethren to the importance of exercising the utmost caution in interposing the shield of their professional authority between the law and those with whom it is dealing. In this case an error of judgment, or weakness of will, may lead to consequences as serious as would follow absolute rascality; and even the too zealous following of a scientific conviction may bring discredit upon the whole medical profession. In the middle ages the right of sanctuary was so abused that it had to be abolished; and in our age abuse of the protecting power of medical opinion might lead to the utter loss of this power. Such a result would be as unfortunate for the community as it would be for the physician; and we appeal to the members of our profession, for the sake of the really unfortunate, and of those who wish to be just but not vindictive, as well as for their own sake, to see to it that they never abuse their privilege or bring discredit upon one of their most important functions.

THE NEW YORK HERALD AND HYDROPHOBIA.

The occurrence of a few cases of so-called hydrophobia in various parts of the United States of late has furnished the New York *Herald* an opportunity to fan the dying embers of this disorder, and to excite anew in the minds of the community those fears which the members of the medical profession in this country have been working so faithfully to allay. We have investigated a number of the cases reported as hydrophobia by the New York *Herald*, and have found them to be spurious. It is no great damage to the reputation of this newspaper to say that its utterances in regard to hydrophobia are characterized about equally by ignorance and recklessness, and there is little reason to hope

that it will mend its ways for so small a consideration as this. For years it has seemed to be under the impression that it was a noble mission to increase the popular fear of hydrophobia, and has seemed to enjoy the publication of sensational and terrifying details of cases of so-called hydrophobia. This might not be a very dangerous pastime, if it were not for the fact that it is probable that the New York *Herald* is read by a large number of people who are more gifted with curiosity than with wisdom; and we should not call attention to the matter at all, were it not for the fact that we wish to enlist an active opposition on the part of intelligent medical men to an influence which is too serious to be simply ignored. Whenever a daily newspaper begins to publish the details of cases of so-called hydrophobia, there is apt to be a revival of the popular fear of this disorder, and a multiplication of the number of persons suffering with its symptoms. Fortunately for us, the influences which keep up the excitement about hydrophobia in France, and which keep up the number of cases of so-called hydrophobia there, are not active here; and even the New York *Herald* cannot turn back the tide of common sense which every year reduces the mortality from this disorder in the United States. But we think it worth while to characterize its conduct as we believe it deserves to be characterized, and beg our readers to remember the reputation which this particular newspaper has acquired by years of consistent editorial management, when they read its statements of fact or its utterances of opinion on medical subjects.

VACCINATING ESTABLISHMENTS.

The proposition to create an establishment for vaccination in Paris seems to be nearing its accomplishment. The *Gazette Médicale*, March 31, 1888, states that a Commission has been appointed to prepare a plan for such an institution, and that the results of its deliberations will soon be made public. The fact suggests the thought that it might be of advantage to have establishments for the purpose of vaccination in American cities also. At present vaccination is effected in this country in a somewhat desultory fashion, and there is no universally recognized source from which good vaccine virus can be obtained. In the intervals between epidemics of small-pox it is always hard, and sometimes almost impossible, for individual physicians to obtain virus of known good quality; and when an outbreak of small-pox creates suddenly an increased demand for vaccination the resources of physicians are taxed to the utmost. This, we think, would be less likely to be the case if some recognized medical body would found an establishment in which vaccination should be practiced for a moderate fee by persons selected for that special purpose. In such an institution—if it were well supported by the members of the profession—the demand for vaccination would be constant enough to secure a steady supply of good and reliable virus, and medical men would feel safe in recommending their patients to go there for the vaccination of themselves or their children, instead of taking the risks inseparable from the use of such virus as they can secure. In such an institution bovine and human virus could be systematically propagated and a fair test be made of their respective merits. The service of the establishment could be conducted on the same general principles as now govern hospital clinics, and an arrangement might be made for a scale of prices differing at different hours, so that a certain respect should be paid to social distinctions which it might be wise to recognize.

We believe that some such plan as we have now outlined would not be impracticable, and that it might prove very useful.

MURDOCK'S LIQUID FOOD.

This widely advertised article of diet, which had for some time the *quasi* endorsement of certain well-known members of the medical profession in Boston, and which is said to still have the support of the *Annals of Gynecology*, has recently come in for a share of the searching investigations of that admirable paper, the *Boston Journal of Health*. The result has been a description of the character of Murdock's Liquid Food

which is not calculated to increase its popularity with the medical profession. The present state of the discussion includes statements by disinterested medical men that the manufacturer of this food has attempted to deceive the medical profession and the community, and denials and counter charges by Mr. Murdock. As it stands, the latter seems to have decidedly the worst of it; and our readers may as well bear in mind that the claims made for his preparation are discredited by those who probably know most about it and him, and that it is openly placed in the same category with fraudulent articles of commerce.

THE INDEX MEDICUS.

For some years past Mr. George S. Davis, of Detroit, has been publishing, at a pecuniary loss, the *Index Medicus*, which is a monthly periodical, containing a classified index of the titles and authors of papers and books on medical science, appearing from month to month. It is unfortunate that so important a work as this, and one so creditable to the United States, should be dependent upon private enterprise. It ought to be supported entirely by the funds of the Government, especially when this Government is groaning under the burden of a surplus of wealth, which seems to afflict it as much as the poverty of other governments afflicts them.

As it is, we appeal to as many of our readers as have scholarly tastes, to aid in maintaining the enterprise of the publisher of the *Index Medicus*, by forwarding their names and the subscription price—ten dollars a year—to Mr. Davis. Meanwhile we would urge upon them the advisability of trying to influence their representatives in Congress to make this important publication a part of the good work which the National Government is doing in other directions.

—A blind physician of Pensacola, Fla., has a large practice, and is able to find his way, unaided, about the principal streets of the town in a way that would not discredit that popular institution, the oldest inhabitant.

Book Reviews.

[Any book reviewed in these columns may be obtained, upon receipt of price, from the office of the Reporter.]

VALOR DE LA CURA DE LISTER EN LAS HERIDAS CONTUSAS. Por D. Enrique de Areilza y Arregui, Médico-Director del Hospital de Triano (Viscaya). Tésis del Doctorado. Small quarto, paper, pp. 32. Bilbao, Typographia Católica de San Francisco de Sales, 1884. (Value of the Method of Lister in Contused Wounds, etc.)

In this interesting inaugural thesis Dr. Areilza argues that the essential character of contused wounds is the diminution or abolition of vitality in the injured parts, and a tendency to the development of putrefaction. For the control of this tendency the application of the principles of Lister's method is almost entirely useless; because the germs which cause such putrefactive changes may come from the interior of the body, and are not necessarily an invasion from without it.

The argument is carefully and elaborately arranged, and is of the most convincing character, being supported by a series of observations and experiments which leave little room for doubt that the opinions of Dr. Areilza are correct.

THIRTY-SEVENTH ANNUAL REPORT OF THE CINCINNATI HOSPITAL FOR THE YEAR ENDING DECEMBER 31, 1887. 8vo, paper, 80 pages. Cincinnati, 1888.

It is not usually desirable to comment upon the reports of hospitals, except when they are as elaborate as those of a few English and German institutions, and contain valuable papers by members of the medical staff. But we may make an exception in the case of the Cincinnati Hospital Report before us, because, in addition to the usual details of house-management it contains unusually well-prepared tables of statistics, and certain appendices of considerable value. One of the best of these is that attached to the medical report, which contains a brief but useful summary of the methods of treating typhoid fever by three of the physicians to the hospital.

It is a great pity that the abundant material of hospitals in every part of the world furnishes so little in the way of broad study of diseases and their treatment, and we wish that some way could be found by which each year should furnish some systematic study of large groups of cases by the medical officers of our American hospitals.

Pamphlet Notices.

[Any Reader of the Reporter who desires a copy of a pamphlet noticed in these columns will doubtless secure it by addressing the author with a request *stating where the notice was seen* and enclosing a postage stamp.]

Igiene Sperimentale. Ancora sui Neutralizzanti del Virus Tubercolare. Nota del Socio Cav. Giuseppe Sormani, Pavia, Italy. From the *Rendiconti del Regio Instituto Lombardo di Scienze*, Ser. II, Vol. XX, Fasc. XIX. 3pp.

In this little pamphlet Prof. Sormani follows up his recent investigations in regard to the power of a number of chemical agents to destroy the activity of tuberculous virus. The experiments concerned

chiefly the ease and rapidity with which the different agents proved efficient in rendering tuberculous matter inert, and the results announced are interesting; although we do not at present see any very important practical application of them.

Literary Notes and Queries.

[In this column the Reporter will publish short items of literary interest and questions addressed to this Journal or its readers, and answers to them, in regard to any literary matters: books, authors, places and prices of publications, etc.]

—The *Medical Investigator* is a monthly journal, edited and published by S. F. Smith, M.D., at Louisville, Ky. The first number is dated April, 1888, contains 24 octavo pages, and announces that the "subscripion (*sic*) price" is 50 cents a year. It is said to be devoted to medicine and temperance; but the main object seems to be to advocate total abstinence, and the dispensing of their own medicines by physicians. The literary merits of this new venture are not very great, and it does not bear the marks of very vigorous vitality.

Correspondence.

New Use for a State Board of Health.

Editor Med. and Surg. Reporter:

Sir:—An editorial in the last issue of the Reporter, under the heading: "A New Use for a State Board of Health," affords me an opportunity for publicly correcting a misstatement which has been the source of excessive annoyance to the Pennsylvania State Board of Health. The following is the explanation of the very objectionable placard in one of the lines of street passenger railway cars to which you call attention:

The *Annals of Hygiene*, which has been adopted by the Board as its official organ, has undertaken, on its own responsibility, a series of analyses of articles of food, including beverages. These analyses it has from time to time published, with comments on their results. Among the articles thus analyzed were several beers. The proprietor of the beer which showed the best result has taken advantage of the fact that the *Annals* is the official organ of the Board to announce that the Board commends his beer. The subject of beer has never been discussed by the Board. The Board has never authorized an analysis of beers. Perhaps it has been derelict in not doing so; but it conceived that other duties were more important and pressing. The moment that the advertisement referred to appeared in the cars, the secretary addressed an urgent remonstrance to the company against this unauthorized and misleading use of the name of the Board. The only result was the substitution of a second of even a more unwarrantable character than the first. The law is so little to be depended on in redressing a grievance of this kind, that the Board has so far considered it wiser not to appeal to it. It has trusted that the good sense of our citizens would lead them to the same conclusion at which you at once arrived—that "there must be some mistake about this."

Benjamin Lee, M.D.,
Sec. State Board of Health of Pennsylvania.
Philadelphia,
April 24, 1888.

[The mistake to which we referred and which our correspondent regrets, seems to be due to the fact that the State Board of Health of Pennsylvania does not exercise the supervision which it should over a publication which it permits to use its name. So long as the *Annals of Hygiene* is permitted to call itself the "Official Organ" of the State Board of Health, this body will naturally and properly be held responsible for its doings.—Ed. Reporter.]

Membership of College of Physicians and County Society of Philadelphia.

Editor Med. and Surg. Reporter:

Sir:—Will you please tell me: 1, What are the qualifications for membership of the County Medical Society and of the College of Physicians? Also, 2, If the fact that a doctor dispenses his own medicine disqualifies him for membership in either?

And oblige, An Ignoramus.
Philadelphia,
April 20, 1888.

[1. *The College of Physicians.*—The Fellows of the College of Physicians of Philadelphia must be physicians, of good character and professional standing, residing within the city of Philadelphia, or within thirty miles thereof in the State of Pennsylvania, over twenty-four years of age, and graduates of at least five years' standing. Candidates for Fellowship must be proposed in writing by three Fellows; their application for Fellowship is referred to the Council of the College, and if approved by the Council, it is voted on by the College, after being read at three successive meetings. An election requires a four-fifths vote of the Fellows present and voting. Entrance fee, $25.00; annual dues, $15.00.

The Philadelphia County Medical Society.—Active members must be graduates of at least one year's standing of a regular medical school, and residents for not less than one year of the County of Philadelphia. Candidates for membership must be proposed in writing by three members, the proposition read at a meeting, referred to the Censors, referred back at the next meeting, and voted on at the meeting following this one. There is an initiation fee of $5.00, and persons elected before the June business meeting must also pay the regular annual dues of $4.00.

2. No! —Ed. Reporter.]

Use of Obstetric Forceps.

EDITOR MED. AND SURG. REPORTER:

Sir:—I would like to call attention to the remarks of Dr. Packard, REPORTER, March 17, 1888, page 337, in regard to the teaching of Dr. A. H. Smith in reference to the obstetric forceps. By referring to Vol. 3, Transactions of the American Gynecological Society, he will see that Dr. Smith *condemns* side to side movements. In Dr. Smith's lectures delivered in the summer of 1884 he strongly condemned lateral or rotatory movements with the forceps. Yours truly,

GEO. W. POTTS, M.D.

New Lancaster, Kan.,
April 18, 1888.

NOTES AND COMMENTS.

The Feeding of Children.

Not until three years old should a child be permitted to take its meals at the table. Parents should understand that even then he has not reached an age when a full diet can safely be allowed.

First of all, he must be taught to eat slowly, and parents certainly ought to set the example. The habit of "bolting" food, so common to many, both children and adults, is an extremely pernicious one, for which there is no excuse.

Even before this period, sound fruits may be allowed children, provided, of course, those easy of digestion are selected, and care is taken to remove the seeds, skins, etc. It will be well to encourage them, when they join the family at the table, to eat a small quantity of fruit for breakfast, and before other foods are served. For this meal, children may be allowed milk, oatmeal, bread and butter, and eggs, either lightly boiled, poached or scrambled. If, instead of eggs, they prefer fresh fish or steak, either one or the other may be given; the meat, of course, must be minced fine. Fried foods are forbidden, and this includes fritters and fried cakes.

At dinner, if the soup is thin, it may be allowed, but that kind of soup so often in the home of the laborer, and which is made from bones, thickened with vegetables, and strongly flavored with onions, is entirely unsuited to a child's digestion, and should never be given it. Roast or boiled meats, such as beef or mutton, may be allowed; the fact that pork and all salted and otherwise cured meats are difficult of digestion should be remembered, and their indulgence forbidden.

Potatoes, baked or boiled, dry and mashed, spinach and peas, string beans, asparagus of good quality, cauliflower, and beets when young, are no burden to a child's digestion, and should be allowed; with green corn it is different, unless that which is very tender is used, and the kernels are carefully crushed or grated. Such vegetables as turnips, cabbage, carrots, parsnips and onions, require strong powers to digest them. The same may be said of celery, unless it is stewed. While the vegetables which have been recommended as a part of children's dietary are usually well borne by them, it must not be assumed that they can safely eat them all at one meal; only two of them should be partaken of each day.

For supper, milk toast, bread and butter, and a glass of milk, with possibly a little stewed fruit, will be quite sufficient for young children. Hot bread, cheese and hashed meat and vegetables, so often the supper of the hearty workman, is altogether too indigestible for young children. In fact, it should be the duty of the mother to learn what foods are easily digestible, and none others should be allowed. Her own powers of digestion, or those of the father, cannot by any means be considered a safe guide in the selection of food for her little one.—*Boston Journal of Health*, March, 1888.

Fatal Effect of Christian Science.

The Philadelphia *Evening Telegraph*, April 21, reports that the town of Medford, Mass., is excited over the death of a Mrs. A. James and her new-born child on April 20. Mrs. Connor, the mother of Mrs. James, practices the cure of diseases by prayer or by the method of a Christian scientist. The husband of the dead woman was away from home on business, and it appears that no midwife or physician, other than Mrs. Connor, was called, until both mother and child were dead. Dr. J. L. Coffin was summoned, and, after inquiring into the facts, insisted upon having an autopsy. The town physician, who assisted in the autopsy, states that it showed that mother and child were perfectly healthy before their decease, and that, with the care she should have been given by a common nurse, both would have been alive. It is probable that Medical Examiner Durell will institute legal proceedings against Mrs. Connor.

Contrast between Strychnine and Alcohol.

Dr. Jaroshevsky has instituted experiments upon dogs with regard to the contrast between strychnine and alcohol, and has

come to the following conclusions: 1. Strychnine neutralizes the narcotic and toxic actions of alcohol. 2. With the addition of strychnine, large doses of alcohol may be taken for a pretty long time without the appearance of those changes in the organs which occur after the use of alcohol. 3. Strychnine should be given in all forms of alcoholism. 4. Strychnine may be considered as a powerful prophylactic agent against alcoholism.—*Deutsche med. Wochenschrift*, March 13, 1888.

Poisoning from a Belladonna Plaster.

Dr. J. E. Horn, in a letter to the *Cincinnati Lancet-Clinic*, March 31, 1888, states that for a painful arm he applied a belladonna plaster to relieve the soreness; the plaster was four by eight inches in size. It was on about thirty hours, and because of the burning it produced the patient removed it, and a vesicated spot the size of the plaster was visible. Two days later he was called in, and on looking at the arm was frightened to find the denuded surface of a deep, angry red, and a scarlet hue extending from its edges in every direction. The arm was swollen all the skin would admit of from shoulder to elbow, even extending to the fingers and hand, but not so great below the elbow. The patient complained of dryness of the throat, and had double vision. The inflammation remained about in the same condition for three days, and then began to gradually subside. The patient told him that she was served nearly the same way years ago, when another physician had applied a "plaster." She also said that turpentine or coal oil would blister her in a few minutes if applied to the skin.

Care of the Pauper Insane.

It is reported from Albany, N. Y., under date of April 13, that the Assembly has passed an Act, by a vote of 77 to 7, authorizing the Overseer of the Poor of Ulster County to remove to that county for its keeping any indigent chronic insane it may have in any State insane asylum.

The act was strongly opposed by several members of the Legislature, as a backward step in the method of providing for the indigent insane.

Polydactylitis.

In Oerebro, Sweden, a shoemaker and his son have on both their hands two thumbs each, which are fit for work. This surplus of fingers is present also in a brother of the shoemaker and in four of his children, but in these five persons the supernumerary finger is not capable of work. The mother of both the brothers has six toes. No such peculiarity has been reported concerning the grandmother on the mother's side; but the great grandmother is known with certainty to have been supplied with six fingers on each hand. This deformity has therefore been transmitted through five generations.—*Allgemeine med. Central-Zeitung*, Feb. 11, 1888.

Acid Bichloride Solution.

Prof. Krönlein, of Zürich, communicates the following formula for an acid solution of corrosive sublimate with salt, to the *Correspondenz-Blatt für Schw. Aerzte*, No. 4, 1888:

Hydrarg. bichlor. cor.	16 oz.
Sodii chloridi,	
Acid. acetici dil (20.4 %) of each	8 oz.
Aquæ	32 oz.

M. Sig.—10 % corrosive sublimate solution.

This concentrated solution is kept on hand in the shops and clinics, marked with the word poison, in order to quickly prepare the customary $\frac{1}{20}$ to $\frac{1}{10}$ per cent. solutions for surgical purposes. According to Meyer, of Göttingen, it remains clear both in the dark and light, and forms no basic precipitate with strong lime water even after being kept for months.

Puerperal Eclampsia.

Dr. William Goodell in a letter to the *Medical Standard*, April, 1888, says: "In the majority of cases of puerperal eclampsia, I limit my treatment to chloral hydrate thrown up the bowel. This is repeated whenever twitchings or other premonitory symptoms of recurring convulsions manifest themselves. In plethoric cases I bleed first and then give chloral hydrate per rectum. Whenever convulsions are threatened I either bleed or else give chloral hydrate per os in smaller doses until headache is relieved or until the twitching, double vision or blindness are removed. If labor has begun, I give chloroform, not ether, and deliver rapidly. If labor has not begun, I watch and await events, interfering only when compelled."

Prescription for Headache.

Dujardin-Beaumetz recommends the following:

℞	Caffeine	gr. iv
	Salicylate of sodium	gr. iv
	Hydrochlorate of cocaine	gr. iss
	Water	f℥ij
	Syrup	f℥vss

M. Take the whole at one dose at the beginning of the attack.

Salol as an Antiseptic.

Just as antipyrin after its original applications was found to have numerous others equally effective, so it is now with salol, which seems likely therefore to presently command a more extensive patronage. One of these seems to be really important. The antiseptic properties of the compound have always been recognized, but salol has never been applied externally. Now, however, continuing the parallel with antipyrin—the most important property of which was discovered in a country other than that in which it was first used—salol has been proved to be a valuable antiseptic in France, Italy, and Switzerland. It is specially recommended as a substitute for iodoform, in all cases in which the latter has been previously used, and considering its freedom from objectionable odor, it is not astonishing that its application in this direction should find favor. Moreover, it is not toxic, which is more or less the case with iodoform. Another advantage is that it is about twenty per cent. cheaper than iodoform.—*Chemist and Druggist*, March 24, 1888.

Lafayette Mixture.

The Lafayette mixture as recommended by Bumstead (1870) is as follows:

℞ Copaibæ.....f℥ j
Liq. potassæ.....f℥ ij
Ext. glycyrrhizæ..... ℈ ss
Spir. æth. nitrosi.....f℥ j
Syrupi acaciæ.....f℥ vj
Olei gaultheriæ.....gtt. xvj

Mix the copaiba and the liquor potassæ, and the extract of licorice and sweet spirit of nitre first separately, and then add the other ingredients.

Dose.—A tablespoonful after each meal.

Dr. Keyes's modification of this formula is as follows:

℞ Potassæ citratis..... ..... ℥ ij–vj
Bals. copaibæ.....f℥ iij–vj
Ext. hyoscyami fl..... ...f℥ ss–ij
Syr. acaciæ.....f℥ iss
Aquæ menth. pip....q.s. ad..f℥ iij

M. Sig.—Shake. Teaspoonful in water.

Formula for Tobacco Amblyopia.

A. St. Clair Buxton says (*Lancet*, Feb. 25, 1888), that the following formulæ have proved useful in this affection:

Liq. hydrarg. perchlor. (B. P.)..f℥ ss
Potassii iodidi.....gr. xij
Aquæ destil. ad .....f℥ j

Sig.—Take three times a day.

Ext. nucis vom.....gr. ss
Ext. hyoscyam... ....gr. j

Ft. pil. No. j. Take with each dose of the mixture.

Amylene Hydrate.

The testimony as to the good effect of amylene hydrate as a hypnotic continues to grow. Georg Buschan has a good word for it in the *Beliner klin. Wochenschrift*, March 19, 1888. He thinks that amylene hydrate, although not a hypnotic of the first rank, is a substitute for chloral and paraldehyde, possessing the preference over the former in not being in so great a degree a cardiac depressant, and over the latter on account of better action with smaller doses, and also because it lacks the unpleasant odor exhaled from patients taking paraldehyde. He thinks it should be used in general medical practice, and reports success from its hypodermic use.

Antifebrin.

Dr. E. Houston, of Stanberry, Mo., writes to the *Weekly Medical Review*, April 7, 1888, that he has obtained excellent results from the use of antifebrin in inflammatory rheumatism, neuralgias, and as a hypnotic in insomnia due to reflex nervous phenomena in women. He has also given it in cases in which the extremities were cold and bathed in clammy sweat, temperature below normal, and heart embarrassed. These symptoms, he says, disappeared in an hour. He regards it as a heart tonic.

Successful Case of Cæsarean Section.

Dr. Howard A. Kelly, of Philadelphia, did the improved Cæsarean operation, April 17, 1888. The patient was a dwarf, fifty-two inches in height. The indication for the operation was absolute, as the patient had a generally contracted pelvis with a true conjugate estimated at 2¼ inches. The woman had been in labor nine days, and the membranes ruptured four days, before Dr. Kelly was called. The whole operation occupied thirty-seven minutes, the delivery of the child, five minutes. The patient is doing well, eating heartily, with a pulse of seventy. The child died of jaundice at the end of a week. Should this woman recover, and there is every reason to believe she will, it will be the first recovery under Cæsarean section in Philadelphia in half a century.

The Sense of Taste.

Science, March 23, 1888, contains an interesting paper by E. H. S. Bailey, and E. L. Nichols, on the delicacy of the sense of taste. These investigators found, by experimentation, that men detected one part of quinine in 392,000 parts of solvent, women one part in 456,000; men detected one part of acid in 2,080, women one part in 3,280;

men detected one part of salt in 2,240, women one part in 1,980; men detected one part of sugar in 199 parts, women one part in 204; men detected one part of soda in 98 parts, women one part in 126.

From these results the following conclusions may be drawn:

1. The sense of taste is much more delicate for bitter substances than for any others. It is possible to detect quinine in a solution which is only $\frac{1}{3000}$ the strength of a sugar solution—and quinine is only $\frac{1}{10}$ as bitter as strychnine.

2. The order of delicacy is, bitter, acid, salt, sugar, and alkali.

3. The sense of taste appears to be more delicate in women than in men. This is true in the case of all the substances except salt. A similar difference was found in favor of female observers in an earlier and independent set of experiments, which agreed in every essential particular with the results of the present test.

Marked differences in the delicacy of the sense of taste of different individuals were met with in the course of these experiments. There were persons who could place in the proper class, solutions containing one part of quinine in 500,000, and other substances in corresponding high dilution, while some failed to detect solutions of more than three times the above strength. Among the men examined were many who have been accustomed to handling and recognizing drugs and medicines, and yet even these were frequently surpassed by female observers who had no such training.

In a few cases, the ability to detect a dilute sweet was accompanied by a lack of ability to detect dilute bitters. This peculiarity was, however, far from being a general one. Among the observers subjected to experiment, the frequent use or disuse of quinine seemed to have had no special influence as effecting its detection.

As to the degree of delicacy of the human sense of taste for the substances in question, there is reason to believe that they are but slightly influenced by individual idiosyncrasies, and may be regarded as fairly representative.

Pennsylvania State Medical Society.

The Pennsylvania and the Philadelphia and Reading railroads and their branches will sell excursion tickets for the session of the Medical Society of the State of Pennsylvania in Philadelphia in June next. Application for an order, naming which road, may be made to Dr. Wm. B. Atkinson, 1400 Pine Street, Philadelphia. Tickets will be sold for one-third less than the usual rate.

NEWS.

—Dr. George M. Gould has removed to 119 South Seventeenth street, Philadelphia.

—Dr. Clara Marshall has removed to 131 South Eighteenth street, Philadelphia.

—According to a provision in the Budget presented by the Chancellor of the Exchequer to Parliament, English physicians are threatened with a tax of five dollars on their horses.

—The *British Medical Journal*, April 21, 1888, announces the death of Dr. De Chaumont, who succeeded the late Professor Parkes in the chair of Military Hygiene, at the Royal Army School, England.

—Since the first of January there have been 78 cases of small-pox reported in Philadelphia. Of this number 42 were sent to the Municipal Hospital, and eleven died. The number of cases is diminishing.

—Governor Beaver has appointed a commission, under the act of June 14, 1887, to select a site and erect thereon a hospital, at or near Hazleton, Penna., for injured persons in the middle coal fields. An appropriation of $60,000 has been made for the purpose.

—Dr. R. B. Root reports to the *Boston Med. and Surg. Journal*, April 19, 1888, that he recently attended in confinement a young woman, 15 years old, whose great-great-great-grandmother is still living at the great age of 95 years, so that six generations of the family are now alive.

—The Marshall Hall prize has been awarded to Walter Holbrook Gaskell, F.R.S., Lecturer in Advanced Physiology in the University of Cambridge. This prize is given every five years for the best original work done during that period in physiological or pathological research.

—The next meeting of the American Gynecological Society will be held in Washington, September 18, 19 and 20, in order to give the members of the society an opportunity to attend the sessions of the Congress of American Physicians and Surgeons, which is to be held in Washington at that time.

—The *Northwestern Lancet*, April 15, 1888, says that in the vomiting of early pregnancy, lying with the shoulders low and the hips elevated will give quick relief. A linen compress saturated with French brandy, strapped tightly over the gastric region with adhesive plaster, acts mechanically in holding the muscles quiet, and will sometimes do wonders in these cases.

HUMOR.

INDIGNANT PHYSICIAN: "Man, what have you done? You sent my patient the wrong prescription, and it killed him."

Druggist (a calm man, accustomed to abuse): "Vhell, vhat vas der madder mit you? Last veek I send your odder patient der righd berscription, and dot killed him. How can somebody blease sooch a man?"—*Brooklyn Eagle.*

STRANGER (in drug store): "You seem to carry an extensive line of goods."

Proprietor (affably): "Yes, sir."

"I've been told that you are a reliable man to deal with."

"You will find everything just as represented, sir. What can I have the pleasure of doing for you?"

"I guess I'll take a look at the directory."—*Judge.*

IN AN ITALIAN JOURNAL, *Il Giornale delle due Sicilie*, there was, not long ago, a translation of a paragraph in an English newspaper, giving an account of a man having beaten his wife with a poker. The word "poker" was not intelligible to the editor. He, however, had the candor to admit his ignorance, which he did in the following language: "Non sappiamo, per certo, se questo 'pokero' Inglese sia uno strumento domestico o bensi chirurgico"—"We do not know with certainty whether the English poker be a domestic or surgical instrument."—*N. Y. Evening Post.*

JAMES PAYN, THE NOVELIST, is editor of the *Cornhill Magazine*, London. Next door to his office a medical journal has its sanctum. One day Mr. Payn's door was cautiously opened and a pale-faced, long-haired individual entered. "I have brought a little thing about sarcoma and carcinoma," said the visitor. "Very sorry, sir," said Payn, politely, "but we have all the poetry we want." "This isn't poetry!" exclaimed the visitor. "It is an essay on two varieties of tumor." "Oh, I beg your pardon," said Payn, "I thought they were a pair of Italian lovers." The long-haired man was a well-known professor who had entered the wrong office.

OBITUARIES.

ANDREW B. VAN HORNE, M. D.

Dr. Andrew B. Van Horne died at Orange, N. J., March 31, of pulmonary phthisis. He was graduated from the College of Physicians and Surgeons, New York, in 1880, and not long afterwards was obliged to go to Colorado Springs for the sake of his health, and returned from there only last summer.

THOMAS D. WORDEN, M. D.

Dr. Thomas D. Worden, of Wilkesbarre, Pa., died in Fort Plain, N. Y., April 19, 1888, at the age of 34 years. He was a graduate of Albany, N. Y., Medical College. The last year of his life was spent in Colorado Springs, Colorado, where he went thinking that the climate would be beneficial, suffering as he did from lung trouble. His disease, however, resulted in his death, two weeks after returning to the East.

EDWARD GREELY LORING, M. D.

Dr. Loring died suddenly in New York, April 23, in the fiftieth year of his age. On the day of his death he attended to his practice as usual. It is understood that his sudden death was owing to heart disease, though no such affection was known to his friends, and probably not to himself.

Dr. Loring was graduated from the Medical Department of Harvard University, in 1864. He soon came to New York, and for a time was associated in practice with the late Dr. Agnew. At the time of his death, and for many years before, Dr. Loring was one of the surgeons of the New York Eye and Ear Infirmary. He was widely known and generally recognized as an authority upon ophthalmoscopy. His "Text-book of Ophthalmoscopy," the first volume of which was published in 1886, took rank at once as the standard American work on that subject. His death is the more to be deplored as it follows so closely upon that of Dr. C. R. Agnew, and so makes two notable vacancies in the ranks of New York ophthalmologists.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, for the two weeks ended April 21, 1888:

W. H. H. Hutton, Surgeon, to proceed to Biloxi, Miss., on special duty, April 21, 1888.

W. H. Long, Surgeon, granted leave of absence for fourteen days, April 21, 1888.

H. W. Sawtelle, Surgeon, granted leave of absence for seven days, April 21, 1888.

F. M. Urquhart, Passed Assistant Surgeon, granted leave of absence for seven days, April 10, 1888; to assume temporary charge of Cape Charles Quarantine Station, April 17, 1888.

J. H. White, Passed Assistant Surgeon, relieved from quarantine duties at Sapelo Station, April 21, 1888.

L. L. Williams, Passed Assistant Surgeon, relieved from duty at Marine Hospital, Boston, Mass.; to assume charge of Cape Charles Quarantine Station, April 17, 1888.

W. D. Bratton, Passed Assistant Surgeon, relieved from duty at Marine Hospital, San Francisco, Cal.; detailed as medical officer, Revenue Steamer "Bear," during Summer cruise, April 19, 1888.

Changes in the Medical Corps of the U. S. Navy for the week ending April 28, 1888.

Medical Inspector A. S. Oberly granted six months' leave, with permission to visit Europe.